

Promoting Gender Equality in Responses to Climate Change

The case of Kenya

Chinwe Ifejika Speranza

Promoting gender equality in responses to climate change

The case of Kenya

Chinwe Ifejika Speranza

DIE Research Project “Climate Change and Development“

Bonn 2011

Die Deutsche Nationalbibliothek verzeichnet diese Publikation in der Deutschen Nationalbibliografie; detaillierte bibliografische Daten sind im Internet über <http://dnb.d-nb.de> abrufbar.

The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographic data is available in the Internet at <http://dnb.d-nb.de>.

ISBN 978-3-88985-534-3

Chinwe Ifejika Speranza is a researcher at the German Development Institute/Deutsches Institut für Entwicklungspolitik (DIE) in Bonn, Germany. She is a Geographer and a Geographic Information Systems (GIS) Specialist. She studied at the University of Nigeria, Nsukka (BSc), the Universities of Zurich (MSc) and Bern (PhD), both in Switzerland. Her research currently focuses on adaptation to climate change in Africa, in particular, on adaptation to climate change in African agriculture. She also teaches in the DIE post-graduate school and the DIE-Global Governance School. Prior to that, she worked several years on GIS and its use for development planning and the management of natural resources, and on food security, drought vulnerability and risk in agro-pastoral areas. She also held teaching responsibilities in these fields.
Email: ifejika.speranza@die-gdi.de

Foreword

The recently concluded United Nations Framework Convention on Climate Change Conference of Parties in Cancun, Mexico, will not go down in history as a breakthrough in world climate politics. However, the conference was able to demonstrate, among other achievements, that the importance of gender in climate change responses is increasingly being acknowledged.

Climate change affects women and men differently and both women and men have different resources and experiences at their disposal to deal with climate change (including climate variability). It is therefore important that climate change responses are gender-sensitive and build on these different resources and experiences in order to effectively reduce women's and men's vulnerability and build up their adaptive capacities.

However, despite the increasing attention paid to gender in climate change policy and discourse, it is equally important to analyse how gender is actually being mainstreamed in the practice of responding to climate change at national and local levels. Having information on the realities of mainstreaming gender into climate-change-related responses will highlight the successes, failures and challenges in promoting gender equality in climate change responses as well as identify options to better promote gender equality in such responses.

This paper addresses these aspects using Kenya as an illustrative case and contributes to the discourse on gender at the nexus between the climate and the development community as well as in the implementation of policies into practice.

The study was carried out in Department IV of the German Development Institute (DIE): Environmental Policy and Management of Natural Resources, in the framework of a BMZ-funded flagship project on "Climate Change and Development". Dr. Susanne Neubert (DIE) and Marita Steinbach, head of the BMZ's Division 214, Gender Equality; Human Rights, Culture and Development initiated the idea of conducting this study. A forerunner study which analyses development policy instruments at the nexus between climate and development from a gender perspective was conducted by Dr. Birte Rodenberg (see DIE Discussion paper 24/2009). This paper also draws upon a background paper on promoting gender equality in Kenya, commissioned by DIE and carried out by Prof. Francis Lelo, Dr. Wanjiku Chiuri and Ms. Sarah Ogalleh.

This study would not have been possible without the support of Mr. Maurice Opondo, who assisted me in the collection of data in Kenya. I am grateful to the review commission, comprising Dr Imme Scholz, Dr Elke Herrfahrdt-Pähle, Dr. Michael Brüntrup, Dr. Aimée Hampel-Milagrosa, and Ms Isabel van de Sand, and in particular to Dr Imme Scholz and Dr Elke Herrfahrdt-Pähle, for reviewing an updated version of this study. I would also like to thank the project coordinator Anette Köhler-Rahm, and the department's secretary, Ms Ina Gampfer for their support. I thank the Department IV research assistants for collecting and managing literature: Simone Dohms, Katharina Graf, Cécile Bourgin and Miron Schmude.

Bonn, February 2011

Chinwe Ifejika Speranza

Contents

Abbreviations

Summary	1
1 Introduction	5
2 Methodology	7
2.1 Gender and climate change-related concepts and definitions	7
2.2 Conceptual framework	10
2.3 Data and methods	10
3 Background	12
3.1 Climate variability and climate change in Kenya	12
3.2 Gender roles and responsibilities and vulnerability to climate variability and change	14
3.3 Gendered access to resources and vulnerability	16
4 Legal frameworks, institutional arrangements and gender practice	18
4.1 Policy and legal frameworks for promoting gender equality	18
4.2 Policy instruments guiding the sampled organisations in their response activities	24
4.3 Gender representation among the sampled organisations	26
4.4 Consideration of gender in the organisations' activities	27
4.5 Perceptions and knowledge of climate change, gender and their interactions	29
5 Gender equality practice in climate change-related responses	31
5.1 Responses and their interactions with gender roles and responsibilities	32
5.2 Responses and their interactions with gender access to resources and opportunities	33
5.3 Responses and their interactions with voice and participation	34
5.4 Responses and their interactions with power and decision-making	35
5.5 Considerations of gender needs, priorities and preferences	36
6 Insights for promoting gender in climate change-related responses	37
6.1 Challenges to promoting gender equality in climate change-related responses	37
6.2 A double mainstreaming of gender and climate change	39
6.3 Implications and options for promoting gender equality in CC responses	40
7 Conclusions	44
Bibliography	47

Boxes

Box 1:	Government strategies at achieving gender equality as stated in the Kenya Vision 2030	21
Box 2:	Considerations of gender in Kenyan climate change strategy documents	23
Box 3:	Factors hindering gender-equality in Kenya	39

Tables

Table 1:	Analytical framework for examining the inter-linkages between promoting gender equality and climate change responses	11
Table 2:	Policy documents used by the sampled organisations to guide their responses to climate change	25
Table 3:	Staff of the sampled organisations disaggregated by sex	26

Annexes

Annex 1:	Surveyed organisations	51
----------	------------------------	----

Abbreviations

ACTS	African Centre for Technology Studies
ASAL	Arid and Semi-Arid Lands
BMZ	Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung / Federal Ministry for Economic Cooperation and Development
BPFA	Beijing Platform for Action
CC	Climate Change
CDM	Clean Development Mechanism
CEDAW	Convention on the Elimination of All Forms of Discrimination against Women
CFA	Community Forest Association
DNA	Designated National Authority
DRSRs	Department of Resource Surveys and Remote Sensing
EE	Environmental Education
EMCA	Environmental Management and Coordination Act
ESD	Education for Sustainable Development
FAN	Forest Action Network
GDP	Gross Domestic Product
GGP	Gender and Governance Programme
GoK	Government of Kenya
ICPAC	Intergovernmental Authority for Development Climate Prediction & Applications Centre
IEW	Institute of Environment and Water
IGAD	Intergovernmental Authority for Development
ILO	International Labour Organization
IPCC	Intergovernmental Panel on Climate Change
KARI	Kenya Agricultural Research Institute
KFWG	Kenya Forest Working Group
KMD	Kenya Meteorological Department
KNBS	Kenya National Bureau of Statistics
KNC	Kenya National Communications
KNCCRS	Kenyan National Climate Change Response Strategy
LDC NAPA	Least Developed Country National Adaptation Programme of Action
MDAs	Ministries, Departments and Agencies
MDG	Millennium Development Goal
MEA	Multilateral Environmental Agreements
MGC&SD	Ministry of Gender, Children and Social Development
MP	Member of Parliament
MTEF	Medium Term Expenditure Framework
MTP	Medium-Term Plan
NCGD	National Commission on Gender and Development
NEMA	National Environment Management Authority
NGO	non-governmental organisation
NMK	National Museums of Kenya
NZAID	New Zealand's International Aid & Development Agency
PRSP	Poverty Reduction Strategy Paper
RECONCILE	Resource Conflict Institute

RoK	Republic of Kenya
RPSUD	Regional Programme for Sustainable Use of Drylands
SUMAWA	Sustainable Management of Watersheds
UN	United Nations
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
WUA	Water Users Association

Summary

This study analyses how gender equality is promoted in responses to climate variability and climate change in the rural areas of Kenya and identifies options for improving gender equality in climate change-related interventions. The term climate change responses as used in this paper covers all activities related to climate change and can thus be in the form of climate change policies and / or climate change negotiations or adaptation but excludes mitigation. Adaptation is understood as a continuum, which ranges from responses that are rather developmental in nature, with a focus to reduce vulnerability, to other responses that focus more directly on reducing climate change impacts.

In this paper, an analytical framework was developed to examine the inter-linkages between promoting gender equality and climate change responses. Legal frameworks, institutional arrangements and organisational structures were one dimension of this framework. The second dimension was gender practice in development interventions and climate change responses. These were further sub-divided into societal perceptions and knowledge, legal frameworks and institutional arrangements, organisational structures, gender roles and responsibilities, livelihood assets, opportunities and benefits, voice, participation and representation, power and decision-making as well as gender needs, priorities and preferences. In terms of gender mainstreaming, the numerical representation of women as well as the gender content and focus of responses were examined.

Data on the above-mentioned dimensions was collected through interviews, discussions and content analysis of policy and other documents. The questions addressed in this paper highlighted how these dimensions are reflected in policies and practices of gender and climate change and their inter-linkages. The study also examined how activities in both policy fields reduce vulnerability to climate change impacts and improve the adaptive capacities of both men and women. A multi-level analysis was conducted at the level of government policies and NGO activities and practices at field levels.

The analyses carried out highlight the importance of international conventions in triggering policy changes at national levels. Having committed to the international conventions such as the UNFCCC or the CEDAW, the national government is also then obliged to implement them. Political will has proved important in this process.

Background analysis showed that Kenya is already exposed to various forms of climate variability, such as floods and recurrent droughts. The study also found that women and girls are already disadvantaged relative to men and boys due to their limited access to resources such as land and large livestock, their low representation in formal employment as well as the gap in primary and secondary school enrolments of girls relative to boys, especially in the marginal north-eastern region. Women and men suffer different climatic impacts, which seem to be greater in magnitude for women due to their limited access to non-farm income and the increased work burden as a result of men's adaptation strategy involving migration to urban areas in search of employment.

While both policy fields, climate change and gender, are distinct, some common legal frameworks exist which address either of them. There are not very many policies that address the inter-linkages between climate change and gender, but a few policy documents

such as Kenya Vision 2030 and the Kenyan National Climate Change Response Strategy do provide concrete measures for addressing gender equality and its inter-linkages with climate change.

Political support for gender issues is reflected in presidential directives on various affirmative actions on achieving gender equality. This affirmative action has resulted in various instruments to promote gender equality, a major example being the establishment of gender desk officers in all government departments and presidential directive of 2006 to ensure that 30 per cent of all new employees in all government organisations should comprise women. With these instruments, some progress has been achieved in increasing the number of female government employees, but not in the top management levels where decisions are made. The gender desk officers have some basic knowledge about climate change and are also gradually introducing gender dimensions into the department's work. However, since the gender desk officers do not have decision-making powers, the support of their directors is crucial for achieving progress in gender equality. Important government actors such as the parliament and top government officials also still need to be sensitized on climate change and its gender dimensions.

At field level, very few measures are designed and implemented in a gender-sensitive way. The officers interviewed argued that the government's target is "all". As such, they often use a "blanket" approach that targets "all" without making allowance for the differential impacts on men and women. However, they do encourage women to take up leadership positions in local project groups and in some cases stipulate 30 % women's participation in their projects and programmes.

Through this blanket approach, interventions at field levels can create trade-offs both between gender categories and between gender and age categories. For example, men generally tend to attend extension meetings, while women who would equally benefit from the information disseminated in such meetings tend not to attend due to roles and responsibilities that keep them at home. This leads to information asymmetry, as women lack this information. Trade-offs also arise from improving gender equality in one gender dimension between gender and age categories. For example, increasing the number of livestock brings more income for the household but increases the workload for boys and girls, who have to graze and water them respectively. Thus, while responses to climate change may generally improve the livelihood outcomes for the household, the resulting increased work burden is borne by those whose traditional responsibility it is to perform certain tasks. This implication needs to be closely examined in responses to climate change.

Both at policy as well as practice levels, challenges to promoting gender equality in responses to climate change include the tension between traditional- and modern rules and institutions on gender, the still persisting general perception that gender is only about women's empowerment. Despite the political support from the president, awareness of gender and use of gender as a policy instrument is still not clearly established. There is therefore a need to conduct sensitization activities both for the political bodies and for the public in general. This is also the case for climate change; therefore a "double mainstreaming" of gender and climate change issues is required. While gender mainstreaming addresses distributional issues of access and control, adaptation also has a distributive dimension and addresses issues of improving resource use efficiency as well as protection

from climate risks. Thus, if socio-cultural values and norms continue to perpetuate gender inequality, effective responses to climate change will only be achieved half-way.

In order to bridge the gap between the two policy fields, gender officers could be integrated into the negotiations on the multilateral environment agreements and in the Climate Change Community of Practice. In addition, the government of Kenya could establish climate desk officers in its departments similar to the way it has established gender desk officers, and also train the gender desk officers on climate change issues. Measures to further integrate gender and climate change include trainings, lobbying, strengthening of non-governmental Organisations, legal actions including women quotas, combining top-down and bottom-up planning, as well as higher education. Development cooperation could provide expertise and finance to support such processes.

In the introduction, this paper discusses why a gender-perspective is important in responses to climate change. This is followed by an elaboration of gender and climate change-related concepts and definitions, the conceptual framework, research questions and data collection methods. Climate variability and climate change in Kenya as well as how gender relates to vulnerability to climate variability and change are discussed. Based on the data analyses, the legal frameworks and institutional arrangements are then examined for how they promote gender equality. To establish how gender is promoted in practice, perceptions of gender and knowledge of climate change are examined, followed by how gender is represented and accounted for in the sampled organisations. Gender equality practice in climate change-related interventions, the challenges and options for improving the gender-sensitivity of the responses as well as the implications for gender-sensitive climate change responses are then analysed. The paper concludes by highlighting the major findings and future research.

1 Introduction

This study analyses how Kenyan institutions and organisations are promoting gender equality in responses to climate variability and climate change in the rural areas and examines options for improving gender equality in such interventions. Climate change is an additional driver that will overlay existing social-ecological problems (Boko et al. 2007). The IPCC (2007) states that the poor and the vulnerable are likely to bear the greatest impacts of climate change as they have the least capacity to reduce their exposure to climate change and to adapt to its consequences. Globally women constitute the largest proportion of the poor and this is also true for Kenya (RoK 2007a). Poverty also correlates in many cases with vulnerability to climate-related impacts (Ifejika Speranza 2006a). Drought events have demonstrated that it is the poor who suffer most from weather extremes (Ifejika Speranza 2006a). In most developing countries, including Kenya, women make up the largest percentage of the poor and marginalised. This large representation of women among the poor is attributable to the fact that women are disproportionately exposed to poverty inducing circumstances (Kabeer 2008). This means that where gender inequality exists, climate change is likely to further widen this gap. Thus, responses to climate change need to be gender sensitive in order to ensure that gender inequalities are at least not increased.

However, adapting to climate change presupposes that rural women and men possess the human and other livelihood capital, and have secured access to resources that would enable them to cope with climate change impacts. Gender, that is the socially constructed roles and socially learned behaviours and expectations associated with being female or male (World Bank 2001) is an important analytical framework because it highlights the different ways that women and men (can) manage risks and access opportunities and the implications of this differential access for reducing vulnerability to climate change.

Moreover, a gender perspective reveals the disparities between women and men in these dimensions. Thus, to understand the linkages between gender and climate change, it is important to understand the social relations in a society, women's and men's roles and responsibilities, their access to resources and how these shape their capacity to cope with livelihood stresses, in this case, climate-related impacts.

Access to and control of resources is also divided along gender lines – in rural areas of Kenya women have control over small stock such as poultry and certain crops, while men control access over most productive resources such as land, oxen, farm implements, and trees and these resources tend to be inherited by male descendants. In this complex net of access and ownership rights, women in many parts of Africa can only maintain access to the above productive resources through marriage or through male relatives. However, by having only rights of use and access through men, women cannot take any major decisions on selling or buying land or large livestock. This reduces their access to productive resources and constrains their scope of action. This differential access influences the capacity to address livelihood problems, climate change impacts included. Acey (2010, 19) reports on “*a culture of authority in Nigeria, where relationships between people are mediated by age, title, occupation, office and gender*”. These factors are also important in gender relationships in other African societies (Nyong'o / Ongalo 2005).

In addition, it is generally assumed that representation of gender can increase the attention given to gender-specific issues. In simple terms, this means that the higher the number of women in an organisation the more prevalent will be the attention given to issues of concern to women. In climate change terms, this means that the specific ways that climate change negotiations, policies and response activities impact on women would receive more attention if women were to decide on these matters. However, women are hardly represented in formal associations and decision-making processes (cf. Acey 2010; RoK 2007a). This implies that issues affecting women are likely to receive inadequate attention, although some studies also highlight that even in circumstances where women are represented in the decision-making process, women's issues may still not be given adequate attention (cf. Squires 2007). In addition, hierarchies due to social norms even among women restrict women from exercising their voice (Cleaver / Hamada 2010). Nevertheless, the fact that women and men have different backgrounds and different experiences, which influence their decision choices, highlights the importance of integrating both women's and men's perspectives in order to achieve more effective responses to climate change.

Various studies on climate variability and gender in Africa show that women in rural areas have lower social and legal status and fewer rights than men (World Bank 2001). For example, the majority of the women in Namibia do not have secure land rights, have fewer productive resources and their participation in organisations and networks that would increase their access to markets and resources, such as credit, are limited (Angula 2010). This inequality constrains women's capacity to manage risks.

It is equally important to note that where gender interacts with other dimensions of social inequality such as wealth or caste, then women's ability to manage risks is even more constrained (Cleaver / Hamada 2010). Geographical disparities in development and access to resources are also major factors driving gender inequalities (cf. Ifejika Speranza 2006a; RoK 2007a).

Despite the influence of gender on vulnerability to climate impacts, there is little empirical evidence on the links between gender and climate change. Experience of the impacts of and responses to climate variability (e. g. droughts and floods) can provide insights on how responses to climate change could affect gender equality. For example, although drought negatively affects both women and men in certain aspects, it affects women more due to their combined reproductive and productive workload (Arku / Arku 2010).

A gender perspective in responses to climate change is thus crucial because men and boys as well as women and girls experience the impacts of climate variability and change differently and also have different resources at their disposal to deal effectively with climate change impacts. These differential capacities and access to resources defines to a large extent how successfully vulnerabilities to climate change can be reduced. Ultimately, it is then not just a question of only individual men or women being more affected, but in the end, the costs of adaptation will be borne by society as a whole. Thus, if one half of the adult population is disproportionately affected by climate change impacts, this will be reflected in the general development status of such a society, be it in terms of GDP per capita, achieving the millennium development goals, reducing poverty or reducing infant and maternal mortality.

Therefore, to ensure that a country achieves these goals, a gender perspective offers a possibility to examine, for men and women separately, their vulnerabilities, their capacities and access to resources, and to analyse the underlying factors for these inequalities. Having such a perspective provides more robust ideas on how to tackle the issue of low development, climate change impacts and gender inequality. While some studies have highlighted these differential vulnerabilities, few studies examine how current development interventions, government policies and practices actually promote gender equality and how these insights can be used for designing and improving responses to climate change (cf. Rodenberg 2009). Admittedly, the lack of systematic data collection makes such an undertaking difficult but the potential insights to be won from such an approach are compelling.

This study therefore examines how institutions and organisations in Kenya contribute to gender equality and how the insights gained can be used to improve gender equality in climate change policy and practice.

2 Methodology

2.1 Gender and climate change-related concepts and definitions

Gender refers to socially constructed roles and socially learned behaviours and expectations associated with being female and male (World Bank 2001, 2). It is a social construct that defines and differentiates the roles, rights, responsibilities, and obligations of women and men.

“The innate biological differences between females and males form the basis of social norms that define appropriate behaviours of women and men and determine the differential social, economic, and political power between the sexes”.

Although social norms vary across societies and across time,

“they still typically favour men and boys (historical disadvantage experienced by women), giving them more access than women and girls to the capabilities, resources, and opportunities that are important for the enjoyment of social, economic and political power, and wellbeing” (UN Millennium Project 2005, 30).

Gender norms and the policies based on those norms have perpetuated this historical disadvantage. They also negatively affect boys and men, but the most common gender-based disadvantages are those faced by women and girls (UN Millennium Project 2005). The historical disadvantage experienced by women and the primary focus to reduce this disadvantage may be one reason why gender is often misunderstood / perceived as being the promotion of women only, but gender relates to the roles and responsibilities of men and women and to promoting equality for both.

Gender equality and women’s empowerment are thus essential for achieving sustainable and equitable development. Gender equality means equality under law, equality of opportunities and access to benefits and productive resources that enable opportunity, and equality of voice (representation, participation and decision making) (World Bank 2001). It refers to

“the equal rights, responsibilities, and opportunities of women and men, girls and boys. Gender equality does not mean that women and men, girls and boys become the same, but that their rights, responsibilities, and opportunities will not depend on whether they are born female or male” (UN 2001).

It implies that the interests, needs, priorities and experiences of both women and men are understood and taken into consideration. Thus gender equality is not only a women’s issue, but should concern and fully engage men (NZAID 2006).

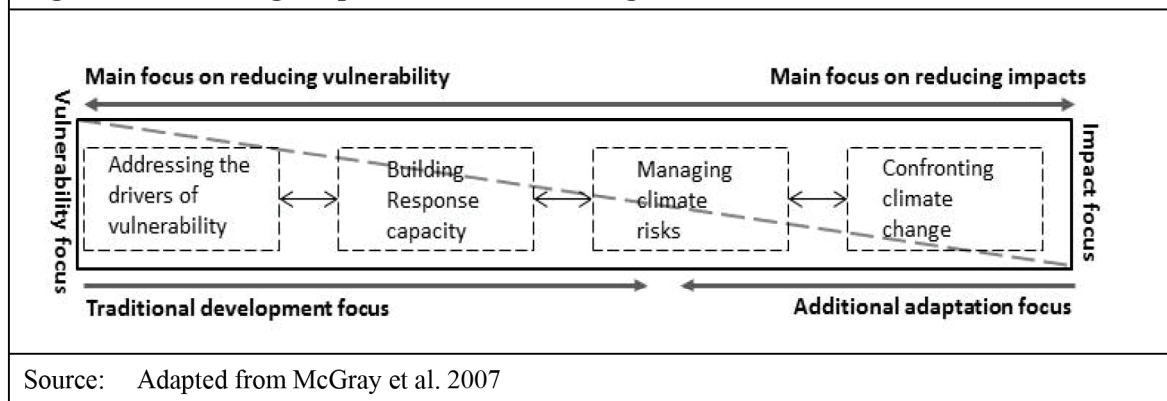
Gender equality can be achieved through the concept of gender equity, which

“recognises that different approaches may be needed to produce equitable outcomes by taking account of and addressing the differences between and amongst the lives of women and men, girls and boys and the diversity of different groups of women / girls and men / boys” (NZAID 2006).

A gender-sensitive approach to climate change (including climate variability) thus focuses on how climate change impacts differently on women and men. It examines how women and men use their different resources, knowledge and experiences to respond to climate change impacts as well as how societal norms, institutions and processes hinder or foster their capacity to deal with climate change impacts and how this can be remedied. Climate variability refers to variations in the mean state and other statistics (such as standard deviations, statistics of extremes, etc.) of the climate on all temporal and spatial scales beyond that of individual weather events (IPCC 2007). Climate change refers to any change *whether in average weather or extreme events* in climate over time, whether due to natural variability or as a result of human activity (IPCC 2007).

Climate change responses as a term is used in this study to cover all activities related to climate change and can thus be in the form of climate change policies and / or climate change negotiations or adaptation. Although responses can also be in the form of mitigation, this is not addressed in this study. Adaptation refers to adjustments in natural or human systems, which moderate harm or exploit beneficial opportunities in response to actual or expected climatic stimuli or their effects (IPCC 2007).

Adaptation actions can be similar to development action as adaptation comprises a continuum of response activities (Figure 1) that may have mainly a vulnerability reduction focus on one extreme or mainly an impact reduction focus at the other end of the continuum (cf. McGray et al. 2007). This wide focus of adaptation activities is because vulnerability to climate change is not just caused by climatic events alone but also by societal norms and processes that in the first place creates vulnerability. Thus, many development activities can qualify as adaptation actions. This insight is important in this study, as many government activities still focus on reducing vulnerability through improving growth and access to resources. They thus qualify as adaptation to climate change activities since they reduce vulnerability, an important focus also of adaptation actions.

Figure 1: Framing adaptation to climate change as a continuum

Vulnerability, in its simplest denotative sense, means the likelihood to be harmed, to experience some loss, expressed in the exposure to and the inability to cope with a stress event. As a concept, it refers to the likelihood of adverse consequences because of various external and internal factors. The degree of vulnerability depends on the environmental, social, economic and political characteristics of an area, population, activities, or the environment and is measured by the ability to anticipate, cope with, resist, and recover from an event, process, or a phenomenon like a drought hazard.

Thus, vulnerability can be examined from different perspectives: an external risk exposure perspective, an internal inadequate (adaptive) capacities perspective and the perspective of the multiple societal processes that foster vulnerability. In terms of external risk exposure, vulnerability to a climatic event closely relates to the characteristics and timing of that climatic event. With regard to inadequate internal (adaptive) capacity, the focus is on the capacity of people exposed to a certain climatic event to cope with and adapt to that event and its outcomes. Finally, in terms of multiple processes (vulnerability context), vulnerability is generated by political, social and economic marginalisation, and weakening social networks. These multiple processes are context-specific and in continuous flux as the biophysical and social processes that shape local conditions and ability to cope also change (Eriksen / O'Brien 2007).

Mainstreaming a gender perspective (in climate change responses) is thus the process of assessing the implications for women and men of the impacts of climate change, of any planned action, including legislation, policies or programmes, in any area and at all levels.

“It is a strategy for making the concerns and experiences of women as well as of men an integral part of the design, implementation, monitoring and evaluation of policies and programmes in all political, economic and societal spheres, so that women and men benefit equally, and inequality is not perpetuated. The ultimate goal of mainstreaming is thus to achieve gender equality” (United Nations 1997).

This can be achieved by addressing both women and men's needs.

Practical gender needs refer to the “inadequacies in living and working conditions and are linked to basic livelihood and survival needs such as food, water, shelter, income, clothing, and healthcare” (ILO 2010, 17 and 38). Thus improving the living and working conditions of men and women addresses practical gender needs.

“Strategic gender needs refer to needs to overcome the subordinate position of women and girls and to promote gender equality and empowerment of women and men in their family and community, e. g. meaningful participation of both women and men in a project, sharing of family responsibilities and decision making, equal access to resources education and training” (ILO 2010, 17 and 38).

Redressing inequalities addresses strategic gender needs.

The foregoing shows that there are two major fields of discourse: “gender” and “climate change”. Thus, analysing gender issues in climate change responses means integrating the two fields and exploring how they shape processes and outcomes affecting both thematic fields.

2.2 Conceptual framework

Based on the definitions above and the study of literature, the following framework (Table 1) has been designed for analyses. Departing from the objective of examining how institutions and organisations in Kenya contribute to gender equality and how insights gained can be used to improve gender equality in climate change policy and practice, four research questions displayed in Table 1 are used to explore the different dimensions in gender equality. The dimensions addressed are shaded (see Table 1).

In researching on how to promote gender equality in responses to climate change, it is important to note that climate change policies are still largely in the making. Thus, this paper does not limit the data collection and analysis to only climate change policies and practices but includes policies and practices related to climate change and the environment such as agriculture, water, wildlife and the environment in general. The term “climate change-related policy and practice” is used in this paper to reflect these considerations. In addition, gender cannot be entirely separated from “age” as a social category and both gender and age interact to determine outcomes for men and women as well as for boys and girls. Therefore, where experienced, such intersections and how they influence gender equality are also discussed in this paper.

2.3 Data and methods

Various methods were used to collect data, including key informant interviews of gender officers and other officers working on climate related issues, participant observation, literature review and the study of policy and other documents. The general hypothesis is that gender and climate change are handled by two separate communities. These two communities need to be brought together to improve the effectiveness of climate change interventions.

Table 1: Analytical framework for examining the inter-linkages between promoting gender equality and climate change responses									
		Gender equality							
		Framework conditions			Gender practice in development interventions				
Climate change responses		Societal perceptions and knowledge	Legal frameworks and institutional arrangements	Organisational structure	Gender roles and responsibilities	Livelihood assets, opportunities and benefits	Voice, participation and representation	Power and decision making	Gender needs, priorities and preferences
Framework conditions	Societal perceptions and knowledge								
	Legal frameworks and institutional arrangements								
Adaptation practice	Voice, participation and representation								
	Power and decision making								
	Whose priorities and preferences?								
Research questions: <ul style="list-style-type: none"> – What are the perceptions and knowledge about climate change, gender and their inter-linkages? – How are the above dimensions addressed in climate change-related policies and practices? – How do climate change-related policies and practices reduce vulnerability to climate change, increase adaptive capacities and promote gender equality? – How can gender equality be better promoted in climate change-related policy and practice? 									

Organisations sampled

A total of 16 organisations in Kenya (see Annex 1) including public, private and non-governmental organisations were purposively identified. These were organisations with a track record in research, training, community outreach and consultancy on climate change-related issues. The study assessed how the organisations were implementing programmes addressing climate change-related issues and promoting gender equality in such responses.

Key informant interviews

Directors and senior officers from twelve organisations working on climate-related issues and five officers from different government ministries and departments, including some gender desk officers (see Annex 1) were interviewed using a checklist. The purpose of the check list was to guide the discussions about the work of the organisations. The points discussed included policies that guided them in their work on adaptation to climate change, challenges faced, and how they were addressing gender concerns in practice. The

key informants also gave their views on feasible strategies and recommendations that could enhance national level strategies promoting gender equality in development practice and climate change responses as well as gender mainstreaming of the organisations' activities.

In addition, a semi-structured questionnaire was administered to five government officers. Issues focussed on covered climate change knowledge, the interactions between climate change and gender, societal perceptions of climate change and gender, how their work took gender into consideration, their opinions on how their activities accounted for, were influenced by and influenced gender roles and responsibilities, gender access to resources and opportunities, representation and participation, power and decision-making, gender needs and priorities, as well as gender expertise, capacities and constraints.

Secondary data review

This involved reviewing policy documents related to climate variability and change and the use of natural resources to establish whether and how gender was taken into consideration. Existing documents on the activities of the sampled organisations, such as their annual reports, articles of associations were also reviewed. Books, reports, journal and newspapers articles and information from the internet provided additional information.

In the following, the gender dimensions of climate variability and change as it affects Kenya are discussed followed by analysis of the legal frameworks, institutional arrangements and organisational structure. Gender practice in development interventions and climate change responses and its influences on gender equality are then examined.

3 Background

3.1 Climate variability and climate change in Kenya

Climate variability in terms of rainfall variability is a common feature of Kenya's climate (Ogallo 2000; Ambenje 2000). This can be in terms of onset, duration and cessation of the rainy season and in terms of rainfall amounts. Kenya has a bi-modal rainfall pattern whereby the first rainy season (long rains) occurs from March to May and the second rainy season (short rains) occur from October to December.

The dominant climatic zones for Kenya are the Arid and Semi-Arid Lands (ASALs) covering about 80 % of the country (58,037 sq. kilometres) while the remaining 20 % are humid and sub-humid. In the arid zone, annual rainfall can be as little as 200 millimetres while it can be over 2000 millimetres in the humid zones. The implications of such climatic zoning for Kenya are that rainfall is erratic both in time and location and droughts are frequent in the ASALs. Major droughts affected the country in 2008/2009, 2006, 2004/2005, 1999/2000, 1994, 1984. Major floods have also affected the country in 2006 and 1998. These climatic hazards have caused significant economic losses to the Kenyan economy culminating sometimes in disasters and emergencies (SEI 2009; RoK 2010a).

It is important to note that a majority of the ASAL population (farmers, agro-pastoralist, pastoralists etc.) derives its livelihood from the use of natural resources. As ecological

conditions critically depend on climatic conditions, climate variability has caused water scarcity, crop failures, pasture inadequacy, prevalence of certain human and livestock diseases and sometimes floods etc. These various impacts have been known to affect men / boys and women / girls differently and these actors have responded to the impacts of climate variability (e. g. droughts, floods etc.) differently according to their capacities and access to resources, leading to more or less positive or negative outcomes for the individual men and women (Ifejika Speranza 2006b) and for the country at large, to declines in development and GDP (RoK 2010a).

As with many regions in Africa, climate projections for Kenya show a likely increase in temperature that is larger than the global annual mean warming (Christensen et al. 2007). While changes are expected on the rainy season (onset, duration and cessation), projections are not yet available on these characteristics and the projected increase in mean annual rainfall will likely be uneven across space and time (Schreck / Semazzi 2004; Christensen et al. 2007). The intensities of extreme rainfall events (droughts and floods) and of rainfall itself are expected to increase while floods may become more common. Recent research shows that climate is likely to become wetter in both seasons, especially in the short rains (October–December; Davies et al. 2009). However, cropping areas might transit to livestock production towards 2050 as season failure rates in East African mixed rain-fed arid-semiarid systems become more common (Jones / Thornton 2009). The rising temperatures have resulted in new health challenges such as increased incidences of malaria in the hitherto malaria free Kenyan highlands (Chen et al. 2006; Pascual et al. 2006). The question then is whether the affected women and men have the capacities to deal with climate change impacts, change production systems and buffer transition risks.

The recent census of 2009 in Kenya shows that women and men constitute 50.3 % and 49.7 % of the Kenyan population, respectively (KNBS 2010). Although at varying degrees within geographical areas, Kenya's Gender-related Development Index¹, based on 2005 figures, is estimated at 0.54 (UNDP 2006). This statistics highlight gender disparities in development in Kenya.

Agriculture represents 24 % of the GDP and employs about 18 % of total formal employment in the country (RoK 2007a). Generally, the sector employs about 75 % of the national labour force (RoK 2005a). RoK (2007a, 3) reports that over *“one-third of Kenya's agricultural produce is exported, and this accounts for 65 per cent of Kenya's total exports”*. With climate change, the projected increase in rainfall variability in East Africa, despite increase in annual mean rainfall, means that men and women will have to cope with crop and livestock loss and water scarcity.

In addition, Kenya is a water scarce country and prolonged dry spells have caused water shortages in the affected areas. Renewable fresh water per capita in Kenya stands at 647 cubic meters against the United Nations recommended minimum of 1,000 m³ and is projected to fall to 235 cubic meters by 2025 if supply does not keep up with population increase (RoK 2007a, 115). Water scarcity exacerbated by climate change particularly poses a challenge to women and girls, who bear the responsibility of fetching water. Walking longer distances and spending more time on fetching water compromises girls' education

1 “A GDI value close to 1 signifies achievement of equality for men and women. Generally, a low GDI ratio indicates deprivation of women in relation to men.” (UNDP 2006, 13)

and constrain women from taking on other activities (RoK 2007a). The scarcity cuts across all ecological zones, urban as well as rural areas.

Water scarcity also has immediate implications on sanitation and health. Less water means less frequent washing and bathing at personal and household level. This leads to compromised hygienic behaviour, resulting in various water related diseases such as typhoid, diarrhoea, skin diseases to mention just a few (Moturi 2008). Coupled with more people suffering from malaria infections, the waterborne diseases place more burdens on women who are traditionally the health care givers in the families. Engagement in caring for the sick means less time available for productive activities and thus locks more women into the vicious cycle of poverty.

3.2 Gender roles and responsibilities and vulnerability to climate variability and change

The different roles that women and men exercise in the household and society are, to different degrees, exposed to climate risks thus contributing in different ways to the vulnerability of women and men to climate change impacts.

The role of heading a household is associated with various responsibilities. In Kenyan society, men as heads of households are responsible for feeding their families. Climate-triggered crop and livestock loss makes the responsibility of feeding the household difficult to achieve. Because men are supposed to provide for their households or be seen as doing so, climatic events, in particular droughts, force men to diversify their sources of income in order to meet the responsibilities of ensuring household food security, paying school fees and other obligations. Women also contribute to these activities, but a man who is perceived to have failed to feed his household loses face in Kenyan society. Security of household members and household property against threats are also a man's domain. Boys for their part are expected to assist their fathers to meet these responsibilities and are responsible for grazing the animals in many communities. Thus, gender expectations put men under social pressure to provide for or be perceived to be providing for their households (Ifejika Speranza 2006b).

Women for their part are expected to support men in the duty of feeding the household. Studies show that more women than men grow drought tolerant crops (famine crops) such as cassava and sweet potatoes, which ensure household access to food under drought conditions in addition to major crops like maize. Such crops are also known in community parlance as "women's crops" (cf. Ifejika Speranza 2006a). Men on the other hand tend to focus their attention on cash crops like maize, without paying much attention to crops with little economic value (women's crops), which for some families become the major staple during droughts. These preferences of men and women for certain crops also need to receive greater attention in responses to climate variability and change.

In addition, women are responsible for domestic chores such as cooking and fetching water as well as doing reproductive work, for example, caring for children and the old. Girls for their part are expected to assist their mothers in the household duties of fetching fuel wood and water. Climate variability and change cause water scarcity, water pollution, and adversely affect the quantity and quality of available natural resources. Thus, to meet these

accepted norms, women and girls have to walk longer distances to collect water and firewood, exposing them to various threats, such as attack by wildlife and violence (Ifejika Speranza 2006a).

Similarly, boys and men in rural areas have to walk longer distances to graze and water livestock. This makes it even more difficult for boys to remain in school as no education services exist in the distant grazing areas. The implications of such coping strategies are that boys migrate longer distances and may drop out of school. Adolescent boys and girls tend to drop out of school because their parents cannot afford to pay the school-related fees during such climatic events as drought due to missing incomes resulting from crop loss. They go to work as domestic helps in towns (Ifejika Speranza 2006a). What this means for development is that the money invested in their education is lost because since they have not completed primary education and have no primary education certificates, they are blocked from continuing education or seeking employment in the formal sector, where basic education is a requirement.

The limited options to earn an income in the rural areas, and the stress that men face for fear of failing to meet up to the societal expectations of being able to feed their family, drive many (young) men to migrate temporarily or permanently to urban areas, in search of alternative or complementary sources of income, by working as drivers, night watchmen, factory and domestic workers. This already occurs in the absence of climate change. They leave women to assume the roles of household heads (personal communication with the Director of RECONCILE; Ifejika Speranza 2006b). 29 % of households are already headed by women (MGC&SD 2009). By migrating, the men (including unmarried sons) withdraw their labour from farm work. This migration strategy means an increase in the work-load for the women. It leaves the wives with more productive and reproductive work burden, doing farm work and taking care of the young, the old and the sick. Consequently, women are increasingly assuming roles that their husbands used to perform such as communal work e. g. building schools and rural access road repairs. The increased workload during droughts and floods leaves women and girls with less time for other livelihood activities and for school work respectively. In pastoral communities, men and boys migrate even longer distances, in some cases alienating them from their households for months. Those left behind, women, children and the aged have less milk at their disposal and are exposed to attacks by raiders.

Historically, migration from rural to urban areas used to be viewed positively when young men could get jobs and regularly send remittances to the villages. However, unemployment rates have increased in urban areas. The majority of the unemployed young men end up living in squalid urban slums. Without money to remit to the village, and with little to show, many men stop going home and literally abandon the family.

Saddled with multiple roles and with absentee husbands and older sons, more women are becoming *de facto* heads of households (Thomas-Slayter / Rocheleau 1995). However, assuming the position of a household head does not mean that such women have more freedom of decision and choice in household production and allocation. In reality; they are only managers because certain activities still require the decision of a man, mainly the husband, or alternatively a brother-in-law, father-in-law or brother. Besides, the husbands can decide to return without notice and resume their roles as household heads. This informal arrangement leaves women and families vulnerable as they cannot make long term

decisions such as family migration, asset liquidation, accessing credit, choice of crops and livestock breeds etc., which could otherwise cushion them against the vagaries of climatic variability and change.

However, it is important to note that the impacts of increased rainfall variability are triggering changes in gender roles in some communities in Kenya, particularly in semi-arid regions (personal communication – Director of Forest Action Network). Whereas water fetching was traditionally a woman's role, young men have taken over this task. Two factors have contributed to this phenomenon: increased distances to water points and the commercialisation of water. Young men use bicycles and ox-carts to fetch the water and sell it to households (SUMAWA 2005). Households unable to afford the water from the vendors rely on poor quality water sourced from digging dry sand beds in seasonal rivers. These sources are shared with wild and domestic animals, further exposing families to water-borne diseases (Moturi 2008). However, the shifts in roles are often temporal, as men and women shift to their socially accepted roles as soon as the situation normalises (Ifejika Speranza 2006b). This means that it is a slow process until women or men can play other roles than those that have been socially and culturally ascribed to them.

With declining rainfall and reduced land holding due to fragmentation after inheritance, life in rural areas is becoming increasingly difficult for young people. These are areas with none or minimal job opportunities. Faced with this dilemma, many young men opt to cut down trees to burn charcoal for sale and also sell harvested sand from dry river beds. These actions have immediate and long-term environmental impacts such as desertification and deforestation. When sand is removed from the dry river beds, water can no longer be stored in the sand-layer. This exacerbates water scarcity.

Climate change thus affects men and women and by extension boys and girls differently. These different ways through which climate change impacts on these gender categories need to be considered in responses to climate change.

3.3 Gendered access to resources and vulnerability

The fact that climate change has gender-specific implications both in terms of vulnerability and adaptive capacity (Dankelman 2002; Denton 2002; Enarson 2002) indicates that resources at the disposal of women and men are crucial for adapting to climate change and taking advantage of the opportunities this offers. The vulnerability of women in agricultural-based economies is influenced by their relative insecurity of access and rights over resources and sources of wealth such as agricultural land (Agarwal 2003; Jackson 2003). RoK (2008a, 117) notes that *“only 3 per cent of Kenyan women own title deeds”* and this minimises their opportunities to access credit. Gendered access to resources is further mediated by the age-and wealth-categories. Thus, it is important to know how poor men and women's agency and capacity to cope with climate change impacts are accounted for in government responses to climate change.

While Kenya has a relatively high level of literacy, gender disparities at the various levels of education exist. According to RoK (2005b, 39), *“the proportion of women to men falls considerably as you move up the education ladder. At primary level, the proportion of 81.3 % net enrolment rate, falls to 78.3 % at secondary school, 44.2 % in polytechnics*

and 48 % at universities respectively.” Few women are at decision-making levels of organisation in Kenya since many lack the necessary education and skills that would enable them to obtain jobs in the formal sector and policy and societal conditions have been unfavourable. Hence, many women are involved in the informal sector of petty trading and businesses, which often collapse in times of drought. Women’s access to cash income is therefore limited. Thus, many women do not have the necessary assets or access to resources to enable them to deal with climate change impacts.

In Kenyan society, patriarchy is the cultural system whereby males can inherit property while women have to rely on their relatives’ properties – including farmland. Men generally own and control means of production such as household labour, land and natural resources there in. Although, women equally work the land, their access to land (even in urban areas) is defined through a man – their husbands, brothers-in-law, fathers and brothers. The predominant understandings and interpretations of traditional laws show that these actors can block women’s access to land despite de jure specifications of equal access (Nyong’o / Ongalo 2005; Ifejika Speranza 2006b). There have also been cases where women lose access to land and other resources on the death of their husbands (Nyong’o / Ongalo 2005).

Thus traditional African laws still predominate and their interpretations hinder women from owning land, landed property and large stock. So even though indigenous land tenure systems always protected the access rights of all members of the community, including women and children, lack of knowledge and documentation of customary law have led to open and diverse interpretations and the lack of understanding of the modern law of land registration has provided conducive conditions for the social and cultural marginalisation of women. Among other factors, this marginalisation has occurred through, the manipulation of outmoded customs and traditions, the globalisation of values and the extension of property systems and values to the exploitation of community resources (Nyong’o / Ongalo 2005).

The implications of women’s restricted access to productive resources (e. g. land, large livestock, trees etc.) under climate change scenarios are that women cannot dispose of such resources to obtain cash to buy food or meet other needs unless the (migrant absentee) husbands give his consent. They can also not decide on land management practices and on the crops to plant without consulting their husbands. The foregoing also means that small stock like goats and poultry are important sources of cash income for women.

In addition to these productive resources, climate change requires that women and men have access to new technologies (e. g. seeds, livestock breeds, tree seedlings, equipment etc.) designed to address climate change impacts. However, rural women and men are inadequately exposed to and do not adopt such new technologies due to various reasons. Women are less exposed to new food production technologies and continue to use traditional methods of production as they are usually by-passed by the little extension packages available. This is because extension officers prefer to concentrate effort on the better-off farmers who have the potential to improve (Kiragu 2010). Secondly, when dissemination meetings are called far away from the homestead, most often women are unable to attend due to the competing roles they have at home, such as washing, weeding, caring for livestock, fetching water, cooking, taking care of babies and the sick etc. Consequently, men who have considerably more free time receive the information, but the women who are

equally farmers continuously miss the information. Lack of access to new information perpetuates gender inequality and vulnerability to environmental stress and shocks. With information, farmers can adapt new technologies, select new crop varieties suitable to the changed climatic conditions and shift timing of the planting season to suit the changed seasons. Both men and women who are excluded from new knowledge continue to raise unimproved crop varieties, which leads to low crop production and thus food shortages.

Considering the foregoing, climate change is likely to exacerbate existing inequalities between and among women and men. This might occur through resource depletion and competition, where many women are likely to lose most. As land becomes less productive and water resources become scarce, these changes are likely to push more women out of production, thus making them more vulnerable than without climate change. Departing from this background, the following chapter analyses how legal frameworks and institutional arrangements influence gender equality in climate change-related responses.

4 Legal frameworks, institutional arrangements and gender practice

This section analyses how policy and legal frameworks address gender and climate change issues as well as the links between gender policy instruments and climate policy instruments. It also examines how the sampled organisations use the existing policy instruments in their activities.

4.1 Policy and legal frameworks for promoting gender equality

Kenya committed itself in international conventions and agreements to address gender inequalities and take gender into account in national development. Such conventions include the Convention on the Elimination of All Forms of Discrimination against Women (UN 1979), the 1993 World Conference on Human Rights (UN 1994), the Fourth World Conference on Women in Beijing (UN 1995) and the Beijing +5 (UN 2000a; 2000b), as well as the Millennium Development Goals (UN 2000c).

In line with these commitments, RoK (2004, 4 ff.) reports progress in the implementation of the Beijing Platform for Action (BPFA) in areas such as in:

- “Improved legal framework for gender equity through constitutional review,
- Enactment of laws addressing specific areas of gender problems,
- Establishment of key commissions such as the Kenya National Commission on Human Rights, and the Gender and Development Commission, each focussing on the promotion and protection of Human Rights and the latter on facilitating gender mainstreaming,
- Employment policy and labour laws,
- Women’s participation in politics and decision making, and
- Free primary education.”

The Government of Kenya (GoK) has thus established various legal frameworks and institutional arrangements to ensure that gender is mainstreamed into all government activi-

ties. The Kenya government established a national policy on gender and development “*to facilitate the mainstreaming of the needs and concerns of men and women in all areas in the development process in the country*”. Besides embarking on affirmative action to promote gender equality in university admission, GoK has incorporated gender issues into various key policy documents such as the Economic Recovery Strategy for Wealth Creation 2003-2007, the Poverty Reduction Strategy Paper (PRSP), the National Development Plan 2001-2007 and the Medium Term Expenditure Framework (MTEF) (RoK 2004).

The national gender and development policy (RoK 2000) makes no mention of climate or rainfall, although it extensively elaborates the major roles played by women in agricultural production. The closest reference it makes to climate variables relates to the close linkage between agriculture and livestock production and issues such as water development (including rainwater harvesting) and the management of the environment (forests, soils and riverbeds), other natural resources and energy. It recommends ensuring “*the involvement of women in all stages of environmental and water projects and incorporating their training in environmental management*” (RoK 2000, 14). It also acknowledges that “*effective co-ordination and collaboration between sectoral Ministries to enhance women’s roles is generally lacking*” and that this “*results in the absence of a coherent approach to develop essential sectoral linkages that can support the multiple roles of women*” (RoK 2000, 8).

In the following, the various ways that Kenyan policies and institutions promote gender equality are summarised under *voice and representation*, *access to resources*, *opportunities and empowerment*.

Voice and representation

The Kenya National Commission on Human Rights Act 2002 provides for the consideration of gender equity in nominating or appointing persons and in the performance of its functions under this Act, the Commission is directed to “*observe the principle of impartiality and gender equity*”.

The Kenyan government established the Ministry of Gender, Sports, Culture and Social Services (MGC&SD) in May 2008, which has the vision of “*a society where women, men and children enjoy equal rights, opportunities and high quality of life*”. To achieve this vision the ministry commits itself “*to promote, coordinate, monitor and evaluate gender equality, women’s empowerment, social development, care and protection of children and other vulnerable groups as an integral part of national development*”.²

The appointment of Gender officers in all Ministries and parastatals aims to ensure that “*gender concerns are integrated in policy formulation and sector based development planning and programming*”. According to the MGC&SD (2010a)

“the appointment of gender officers has resulted to gender mainstreaming as a Performance Indicator being introduced in the performance contracting for the public sector and this is a milestone for Kenya since organizations will ensure gender is

2 Source: <http://www.gender.go.ke/index.php/About-Us/vision-mission.html>

mainstreamed at policy, planning, programming and budgeting in their sector for women's empowerment and gender mainstreaming".

Through various policy instruments such as the presidential directive on 30 % affirmative action in the public sector, the creation of gender focal desks in all ministries and parastatals as well as the Women Enterprise Fund, the MGC&SD has various instruments at its disposal to promote gender equality and women's empowerment. These instruments also reflect the political will of the Kenyan leadership to promote gender equality. Gender thus receives at least a minimum guaranteed attention.

Access to resources

The Kenya Law of succession allows wives to inherit land and property from their husbands but practice is often tilted towards traditional customary laws, whereby male relatives inherit the wealth of the deceased. This means that in a context of additional resource scarcity induced by climate change such as severe droughts, widows would not have any collateral in form of land or property to borrow money and in the worst case become impoverished by such inheritance practices, thereby increasing their vulnerability to various stresses including climate change. In recognition of this and other gender disparities, Kenya Vision 2030, an important national development instrument, has proposed various ways to achieve gender equality (see Box 1).

Opportunities and empowerment

The Kenya institutional framework supports women's access to investment capital. Not having any form of collateral makes it difficult for women to borrow money from the banks. In response to this situation, the Kenyan government established the Women Enterprise Fund- US \$4.7m (for 2008/2009), a form of micro-credit, *"to provide alternative financial services to women who are excluded from the formal and informal financial sectors. The Fund provides accessible and affordable credit to support women start and / or expand business for wealth and employment creation"*, provides for capacity building, promotes market linkages and facilitates investments in infrastructure for the women beneficiaries and their enterprises. *"In addition to the Fund being a flagship project in the Vision 2030, it is also a demonstration of the Kenyan Government's commitment to the realization of the Millennium Development Goal (MDG) on gender equality and women's empowerment"* (MGC&SD 2010b).

Vision 2030 also provides a guiding legal framework for sectoral policies. For example, the Ministry of Agriculture Strategic Plan 2008-2012, has the strategic objective to mainstream gender issues into development programmes through strengthening and harmonizing gender integration efforts in policy, programmes, projects, practices and procedures. Funding of KSH 1 million for each financial year (2008/9 – 2012/13) has been set aside for this purpose (RoK 2009, 67).

Box 1: Government strategies at achieving gender equality as stated in the Kenya Vision 2030

Gender features prominently in Kenya Vision 2030 (Kenya's blue print for development till 2030) as it aims to mainstream gender equity into all aspects of Kenyan society, increase the participation of women in all socio-economic and political processes and to transfer regional and international instruments on gender into domestic laws and instruments. In its Medium-Term Plan (MTP), it also provides funds for these activities (RoK 2008a). It addresses gender equity by making fundamental changes in four key areas, namely: opportunity, empowerment, capabilities and vulnerabilities. Under this Vision 2030, the Government of Kenya (GoK) plans specific policy measures "to correct the glaring gender gaps in access to and control of resources, economic opportunities, and in power and political voice" (RoK 2007a, 133).

The references of Vision 2030 to gender equality are summarised as follows:

- Equity in power and resource distribution: The Kenya Vision 2030 identifies gender inequity as a major developmental challenge. Therefore, one of its eight governance principles is: *"Equality of citizens: Kenya shall be a nation that treats its women and men equally. It will not discriminate any citizen on the basis of gender, race, tribe, religion or ancestral origin"* (RoK 2007b, 22). RoK thus aims for *"equity in power and resource distribution between the sexes, and improved livelihoods for all vulnerable groups"* (RoK 2007a, 21).
- Legal frameworks for gender equality: The Vision 2030 (RoK 2007b, 24); and its MTP (RoK 2008a, x) propose to strengthen laws on non-discrimination, make the legal system efficient to protect individual rights and reduce gender-based violence.
- Human capital: It proposes various actions to *"reduce enrolment disparities between regions and across gender"* (RoK 2008a, ix), to raise the Human Development Index for Kenya by increasing the *"levels of income, education, individual health, longevity and access to basic needs of all Kenyans"*, and by reducing social inequalities *"in access to wealth creating opportunities and public services across gender, regions and income groups"* (RoK 2008a, 5).
- Access to and control over Land: The Vision 2030 recognises that *"glaring disparities exist with regard to gender, with few women claiming land ownership"* (RoK 2008a, 34). It acknowledges the multiple and conflicting land laws, and proposes the National Land Policy which provides *"a framework to remedy gross disparities, particularly with regard to gender, in land ownership"* and the harmonisation of land laws (RoK 2008a, 34-35).
- Opportunities and Empowerment: The GoK's goals for 2012 are to increase opportunities all-round among women, youth and all disadvantaged groups through *"increasing the participation of women in all economic, social and political decision-making processes (e. g. starting with higher representation of women in Parliament); improving access to all disadvantaged groups (e. g. business opportunities, health and education services, housing and justice); and minimising vulnerabilities through prohibition of retrogressive practices (e. g. female genital mutilation and child labour), and by up-scaling the training for people with disabilities and special needs"* (RoK 2007b, 21).
- Poverty reduction through a gender lens: The GoK (RoK 2008a) acknowledges that poverty prevalence is higher among female headed households (RoK 2008a), and aims *"to reduce the number of people living in absolute poverty"* to the minimum through guaranteeing *"equality of opportunity in accessing public services and providing income-generating activities as widely as possible"* (RoK 2007b, 21).
- Participation and affirmative action: The GoK aims to *"increase the participation of women through the affirmative action policy of at least 30 per cent representation"* in recruitment, promotion and appointment at all levels *"in all economic, social and political decision-making processes and platforms as well as through economic empowerment"* (RoK 2008a, 116).

As the Kenya Vision 2030 visualises development until 2030, this policy instrument can only be assessed for its consideration of gender, which it actually does. Progress in promoting gender equality in climate change-related responses can then be assessed based on making Vision 2030 operational in sectoral policies. However, such Vision 2030-based sectoral policies are only emerging and some interval is needed to be able to assess the progress being made by such sectoral policies.

Sources: RoK 2007a; 2007b; 2008a

Kenya's draft wildlife policy (RoK 2007c, 29) acknowledges that *"integrating gender-considerations into wildlife management is critical to the actualisation of the principle of intra-generational equity, an internationally recognised principle in some wildlife related MEAs that Kenya is a party to"*. It also recognises gender equity as *"an essential principle to ensure sustainability, fair management and successful wildlife conservation efforts when analysing the different roles, responsibilities, levels of performance and participation in wildlife decision-making"* (RoK 2007c, 29). The policies consider the gender division of labour, gender roles and responsibilities as well as participation as ways to integrate both men and women optimally into wildlife conservation and management. The policy therefore aims to

"mainstream gender issues and gender equity into wildlife conservation and management; develop mechanisms to provide working partnerships between the Kenya Wildlife Service, conservation agencies and organizations of the under-represented gender, and provide incentives to attract the under-represented gender into wildlife conservation careers and occupations" (RoK 2007c, 30).

The foregoing shows that gender is already receiving some attention in national development policies and plans. The question then is whether gender is also considered in climate change policies and strategies and what actions the Kenyan government foresees to mainstream gender into climate change responses. The Kenya Ministry of Gender, Children and Social Development has established the National Commission on Gender and Development (NCGD), *"the leading national institution central to the realization of gender equality and equity in all aspects of development for a fair and just society"*.³ Among its duties, the commission is to supervise the implementation of the national policy on gender and development. While climate change is not explicitly mentioned, the activities that this commission is to address will likely reduce the social inequalities, which in the first place make women in most Kenyan contexts more vulnerable to the impacts of climate variability than men and by extension to climate change impacts.

Besides Vision 2030, key climate change policy documents such as Kenya's First National Communication (KNC) to the UNFCCC (RoK 2002) and the Kenya National Climate Change Response Strategy (KNCCRS) (RoK 2010a) were examined for their consideration of gender issues. While the KNC generally acknowledges the importance of gender perspectives in climate change responses, the KNCCRS goes further to identify particular gender-related projects and to budget funding for them (see Box 2). This is in contrast to sectoral policies where gender is only mentioned in a few places and mainly as an acknowledgement of the different impacts of certain processes on women. In some recent policies (from 2000 onwards) climate change and gender as well as their interactions are addressed, while others do not address these dimensions (see Table 2). For example, the draft wildlife policy identifies climate change as a major threat that could result in changes in ecosystems, favour invasive species, but acknowledges that there is inadequate data on the impacts of climate change on biodiversity.

3 <http://www.gender.go.ke>

Box 2: Considerations of gender in Kenyan climate change strategy documents

The Kenya National Communications (KNC) to the UNFCCC acknowledges that a major development problem is the persistent and increasing level of poverty and recognises that most of the poor are women. It also highlights that gender imbalances are caused by cultural and other related factors.

The KNC reports that *“issues of gender and climate change are highly correlated because of the productive and reproductive role of women”*. It acknowledges that women play major roles in natural resource use (e. g. as users and suppliers of fuel wood and water), in economic development and food production. According to the KNC, *“women would be most affected by climatic variability and other related impacts of climate change as they affect food production, water availability, health, energy scarcity and technological changes. Participation of women in decision-making on issues of land management and ownership is limited. This issue is being addressed through policy and legislative reforms”* (RoK 2002, 6-7).

The KNC thus acknowledges a gender dimension in climate change impacts and responses through the roles and the responsibilities that women have but does not provide further insights on how to address these exposures or include women’s knowledge.

Concrete measures to address these challenges are however proposed by the recently published Kenya National Climate Change Response Strategy (NCCRS). These include interventions in the water sector in response to climate change whereby it proposes a participatory approach that involves different water users including gender groups, socioeconomic groups, planners and policymakers in water resource management, as one of the core principles in the interventions (RoK 2010a, 53).

The KNCCRS reports about plans to expand the Consolidated Social Development Fund and Women Enterprise Fund to address the following social and gender-based response strategies (op. cit):

- Disburse self-help grants for boosting existing enterprises or for establishing new income generating activities by poor rural and urban women and men, e. g. making energy saving ‘jikos’ (stoves) accessible and affordable to all families and individuals, particularly women; planting of crops used as alternative sources of income, e. g. aloe-vera, neem, and mangrove trees,
- Provide food rations to the hungry at times of need (during drought and flood disasters),
- Extend grants to self-help groups in support of environmental conservation projects such as tree nurseries development, afforestation, riverbank protection, construction / installation of rain water harvesting tanks, spring protection;
- Train gender focal points, women and men self-help groups in environmental management, and
- Disseminate climate change information in local language through the use of field-based gender officers, women groups, and participatory education theatre and music groups (p. 57).

The KNCCRS estimates an annual budget of KSH 2.7 billion for climate change projects and programmes in the Ministry of Gender, Children & Social Development (p. 11). In addition, it lists various government and non-government organisations, international research institutes, the private sector, and Community Forest Associations (CFAs) in a plan to mainstream gender in environment and forestry for the next 20 years starting 2010 (p. 114).

In manpower development, various response activities in the next 20 years costing KSH 2.7 billion are planned. Such activities include social protection, supporting existing enterprises or establishment of new income generating activities by poor rural and urban women and men, education and awareness programmes, capacity building and the promotion of self-help groups in environmental management and enterprise development (p. 117).

In the education sector, within the Climate Change Education and Awareness sub-sector, the NCCRS plans (20 years, KSH 7.9 billion) to mainstream climate change education and awareness across all ministries, departments, and agencies (p. 119).

How well the above measures serve to promote gender equality cannot yet be determined due to their recent nature. However, the strategies acknowledge the importance of gender-sensitive responses and actually set financial resources aside for implementation. However, whether the budgeted financial resources for implementation is adequate and additional is uncertain as apart from disseminating climate change information, other abovementioned response measures are not new to development practice.

Source: RoK 2002; RoK 2010a

4.2 Policy instruments guiding the sampled organisations in their response activities

Having established that the policy and legal framework for promoting gender equality exists in the development and in the adaptation spheres, the following section examines whether and how the sampled organisations use these instruments to guide their response activities. Table 2 below lists policy documents which the respondents from the sampled organisations use to guide their activities.

An examination of the available policy documents showed that not all policies recognise and address gender (see Table 2). This is also the case with climate change issues. Only Kenya Vision 2030 and Kenya's Draft Environmental Policy address both and their inter-linkages. Moreover, none of the respondents mentioned the National Policy on Gender and Development.

The Environmental Management and Coordination Act (EMCA) addresses climate change issues but is silent on gender. However, other policy documents of the NEMA such as the Draft Environmental Education and Awareness for Sustainable Development Plan (RoK 2008b) recognises that gender inequality, climate change and variability are challenges to sustainable development in Kenya, but its implementation plan does not further elaborate on how this problem can be tackled.

Besides internal strategy papers, the major guiding policies on climate change adaptation and mitigation strategies used by the Ministries include Vision 2030 and its medium term plan 2008-2012. Although the Kenyan government (NEMA) has recently published the Kenya Climate Change Response Strategy, this document has not yet found its way into the planning and implementation activities of many government organisations. The guiding policies on gender used by the Ministries are the National Gender Policy, the presidential directive on 30 % female representation and the gender mainstreaming target in the performance contracts of the government organisations.

Other sectoral policies such as the Kenya Forest Act 2005 makes provision for the appointment of the members of the Board to take into account the principle of gender and regional representation (RoK 2005c). The Draft Wildlife Conservation and Management Bill 2007 (RoK 2007d) proposes a national wildlife conservation and management strategy that prescribes *“the principles, objectives, standards, indicators, procedures and institutional arrangements for the management, protection, use, development, conservation and control of wildlife resources and, in particular, for adaptation and coping with adverse impacts of climate change”*. In principle, the gender desk officers are expected to mainstream gender into their department's activities. As a respondent pointed out, *“the veterinary act does not address gender issues but since the Ministry of Livestock Development and all its institutions has a gender officer, the mainstreaming of gender issues into the Ministry's activities is ensured”*.

Table 2: Policy documents used by the sampled organisations to guide their responses to climate change				
	Policy documents	Considerations of gender	Considerations of climate change	Considerations of gender and climate change
1	Environmental Management and Coordination Act (EMCA) 1999*	No	Yes	No
2	Water Act, 2002	No	Indirect through drought and flood	No
3	Forest Act, 2005	Yes	No	No
4	Draft National Land Policy 2005	Yes	Indirect through drought and flood	No
5	Draft Forest Rules Kenya Forest Services Act 2005	No	No	No
6	Energy Act, 2006	No	No	No
7	Kenya's Draft Environment Policy 2007	Yes	Yes	Through environmental management
8	Kenya Vision 2030	Yes	Yes	Yes
9	Draft Wildlife Policy 2007	Yes	Yes	No
10	Wildlife (Conservation & Management) bill 2007	Yes	Yes	No
11	Forest Action Network Strategic Plan 2006 - 2010	Yes	Indirect through water and forests	No
Source: own data collection * The principal instrument of government in the implementation of all policies relating to the environment including climate change				

Other policy documents mentioned as guidelines for the organisations' activities include the Kyoto protocol, the Rio Declaration 1992, the Marrakech Accord, and the Millennium Development Goals (MDGs). In addition to not mentioning the national gender and development policy of 2000 as guiding their responses to climate change, the respondents did also not mention key international documents on gender such as the CEDEAW or the Beijing platform for action.

4.3 Gender representation among the sampled organisations

An examination of gender representation in the organisations (see Table 3) shows that men constitute about 79 % of the employees, while female staff comprises only 21 %. Only two organisations are headed by a woman. A differentiation between junior, middle and senior cadres shows that in most cases men occupied most senior management positions. Organisations focussing on the technical and natural science aspects of climate change have no (e. g. ICPAC), or few female staff (e. g. KMD and the DRSRS). It was difficult to obtain management-level disaggregated data of the government Ministries, but NEMA, a government agency, has more female staff (65 %) compared to male staff (35 %). A recent report on the implementation of the 30 % affirmative action in employment and recruitment of women in the public sector by the Ministry of Gender, Children

Table 3: Staff of the sampled organisations disaggregated by sex						
Institution and cadre of staffs	Men	Women		Total		
	No	%	No	%	No	%
1) Tegemeo Institute	16	64	9	36	25	100
2) Resource Conflict Institute (RECONCILE)	8	53	7	47	15	100
3) Forest Action Network (FAN)	11	61	7	39	18	100
4) IGAD Climate Prediction & Applications Centre (ICPAC)	7	100	0	0	7	100
5) National Environment Management Authority (NEMA)	70	35	130	65	200	100
6) Kenya Meteorological Department (KMD)	665	95	35	5	700	100
7) Department of Resource Surveys and Remote Sensing (DRSRS)	78	63	47	37	115	100
8) Institute of Environment and Water (IEW)	3	43	4	57	7	100
9) African Centre for Technology Studies (ACTS)	12	60	8	40	20	100
10) The Regional Programme for Sustainable Use of Dryland Resources (RPSUD)	3	75	1	25	4	100
11) National Museums of Kenya (NMK)	4	67	2	33	6	100
12) Kenya Agricultural Research Institute (KARI)	24	62	15	38	39	100
SUMMARY						
All staff	816	79	213	21	1029	100
Source: Lelo et al. 2010						

and Social Development, shows that in the public service about 38 % of the employees are female while 62 % are male. Thus, although gender disparities continue to exist, RoK (2010b) showed that the proportion of women in public service continues to increase since out of the 40 ministries (total ministries 44) it sampled, 32 had achieved or surpassed the 30 % target in employment of women (RoK 2010b). However, the proportion of women employed decreases in the top management levels (Lower cadre - men: 63 %, women: 37 %; middle cadre - men: 58 %, women: 42 %; Top cadre - men: 75 %, women: 25 %).

Why are there fewer female staff in most of the organisations? It can be interpreted that not enough women are qualified to take up employment in the formal employment sector. This argument is buttressed by the fact that recent national level analysis reveals a deficit in women's education (RoK 2007a; 2008a). It can thus be argued that the current disparities in employment at higher professional levels rather reflect the effects of past policies where gender parity was not prioritized in government.

4.4 Consideration of gender in the organisations' activities

Generally, gender is not an explicit focus in the activities of many organisations apart from the NGOs, the Ministry of Gender, Children and Social Development and the gender desks of the government departments, which explicitly integrate gender perspectives into their work. Responses show that there are various ways and different degrees to which the organisations consider gender. This can be summarised as 1) acknowledging that gender is important but doing nothing to foster gender sensitivity and equality; 2) implicitly integrating gender into their activities when relevant; or 3) explicitly recognising gender as an important criteria in their activities. Case 2 is more prevalent, closely followed by case 1. Case 3 is less prevalent. In organisations where case 2 is prevalent, case 3 is sometimes applied.

Those that consider gender an important dimension in responses to climate change but actively do nothing to foster gender sensitivity or gender equality are mainly organisations working on technical or physical science aspects.

The organisations that implicitly integrate gender into their work are those which regard the public in general as their target group but sometimes design their activities to target women or men separately. Such organisations are the government ministries (apart from The National Environment Management Authority, NEMA) and some research organisations where gender perspectives are integrated into research in an ad-hoc manner. The organisations that explicitly integrate gender dimensions into their work are the NGOs, a few government ministries and some research institutions. A respondent noted that *"gender is incorporated through inclusion of women in the teams preparing the document. This helps to ensure that women specific issues do not get overshadowed."* This statement reflects a partial understanding of how gender can be mainstreamed. As will be elaborated later, examples of explicit gender-sensitive approaches are cases whereby from the outset, participation of water users associations in government activities are pegged to their having a 30 % female membership.

However, there are exceptions to this case. Various government ministries have a gender officer specifically trained on gender, whose mandate is to ensure that gender is main-

streamed into all their department programmes. NEMA has been targeting women groups in its awareness creation programmes on the environment and climate change through the education department. According to a respondent, this is in recognition that women are more vulnerable to the impacts of climate change than men in general and poorer women are more vulnerable.

As a government institution and the National Focal Point on Climate Change and other MEAs, NEMA represents Kenya in UNFCCC negotiations. The agency is well versed with international treaties and debates on climate change. Among the institutions studied, NEMA was the only institution with a female officer specifically trained and assigned duties on gender dimensions of climate change. Consequently, NEMA adopted a monitoring and evaluation technique to assess progress in the implementation of Education for Sustainable Development (ESD) Implementation Strategy (2005-2014). According to a respondent, ESD was intentionally created to distinguish the programme from general environmental information and education in order to provide focused emphasis on problems associated with climate change, among other sustainable development issues in the country. Members of the National ESD committee (comprising both men and women) and some NEMA staff have also been trained on the application of the outcome mapping approach in ESD monitoring and evaluation. As a result, NEMA stands prominently as the only public institution explicitly advocating for gender equity when addressing climate change issues. However, an assessment of the progress made by Kenya in implementing the Agenda 21 objectives and principles of ESD revealed that Environmental Education (EE) in Kenya has not adequately addressed threats to the environment – as demonstrated by the State of Environment Report for 2003 (RoK 2003).

Forest Action Network (FAN) is another organisation with a gender component within its programmes. The organisation holds workshops with communities and schools especially in the Arid and Semi-Arid Lands (ASALs) (cf. FAN 2005). It sensitizes people about the effects of their activities on the environment, and how the outcomes of individual activities such as charcoal burning or clearing forests are linked to climate change.

One of the mandates of the Ministry of Gender, Children and Social Development (MGC&SD) is to create gender awareness through seminars and publicity, with the aim of breaking the perception that gender means women. It also coordinates activities on gender issues. To integrate gender in the work / activities of other government organisations, the ministry has engaged officers in other ministries / organisations as gender desk officers. However, the MGC&SD has not been (is not) involved in setting the agenda for responses to climate change in other Ministries. The Ministry sets national gender policy and targets and conducts several skills development for other government ministries with the assumption that once skills are developed then each ministry should develop its own strategies in whichever field it finds relevant such as in climate change. It also organises different training workshops where the gender desk officers are trained on issues such as monitoring and evaluation and its publications are freely available to government officers. However, climate change as a topic has not yet found its way into the training courses.

Gender equality is also promoted through cooperation in activities at field levels. The Ministry of Planning, National Development and Vision 2030 works very closely with the MGC&SD in many aspects such as on budgeting, on the Women Enterprise Fund, and in social policy among others. For field implementation, ministries such as agriculture invite

the district social services personnel to participate in the field operations in which communities are mobilized on gender issues.

Thus, while there is no national policy on climate change as such, various plans and strategies such as the KNCCRS provide a framework that can serve organisations to align their climate change response activities. However, the KNCCRS was only recently released; hence the involvement of most of the organisations in response activities and their gender dimensions has been based on the initiatives of their leaders.

Having established how various organisations generally consider gender in their activities, the following section examines societal perceptions (including practitioners' perceptions) of gender equality and the linkages between climate change and gender.

4.5 Perceptions and knowledge of climate change, gender and their interactions

For gender to be mainstreamed and gender equality promoted, not only does the public need to be aware of these dimensions and their implications, but also, practitioners, including government and NGO workers at all levels, as well as the private sector, need to acknowledge the importance of gender perspectives in responses to climate change.

Thus, while general knowledge and information on climate change impacts exist among the respondents, particular insights on how climate change and related issues impact differently on men, women, boys and girls are either inexistent or exist in a rudimentary form but are not shared within and across ministries. Some of the respondents also lack this knowledge.

Considering this limitation, a gender working group from all departments of the Ministry of Water and Irrigation has been formed with the goal of sensitizing fellow staff, conducting a gender baseline survey and if possible developing a gender policy for the water sector.

Generally, gender is still in infancy in Kenyan government. However, some government organisations, such as the MGC&SD and the Ministry of Planning, National Development and Vision 2030 have advanced more than the others, making use of various capacity-building fora to mainstream gender in the planning, budgeting and in the monitoring and evaluation framework. The establishment of a gender desk in each ministry has also accelerated this process.

In other ministries, such as the Ministry of Water and Irrigation and the Ministry of Agriculture, respondents report that despite the Presidential decree on affirmative action, gender skills are yet to be well developed and the right attitude seems to be missing as gender is either perceived as not being important enough or equated with women issues. What emerges at this point is that ministries operative at field levels seem to be lagging behind in integrating gender explicitly into their policies and activities. To improve gender skills in the ministries, the respondents propose continuous training and capacity building of staff. They also highlighted that the full support of the management and sensitizing all the staff – at all levels starting with the top management, is crucial.

In order to ensure attention to gender issues in responses to climate change, the respondents propose to integrate gender in the design, implementation and management of development projects and to improve the social acceptability of development interventions and climate change responses. Such an approach would include conducting gender baseline surveys in all projects where a ministry is involved, working together with gender and climate change experts and other stakeholders in setting targets, conducting excursions for gender desk officers to areas such as to the Scandinavian countries, where gender mainstreaming has succeeded and the monitoring and evaluation of gender issues in projects and programmes.

However, current gender relations generally limit opportunities for addressing gender inequality. While the awareness of women's rights and the Millennium Development Goal Nr. 3 provide an opportunity to address gender inequality, the respondents argued that government staff are not yet fully sensitized on gender mainstreaming except for a few (e. g. the gender desk officer per department). They report the lack of a gender sensitive budget; hence very minimal resources are available for addressing gender inequality.

Furthermore, very few female officers are at the decision-making levels, generally due to lack of relevant training and enabling frameworks. In addition, the gender desk officers do not have competences at department level that enable them to directly influence decision-making and activity plans. Rather, their influence on departmental activities is dependent on how the top management cadre (which often has few or no women) perceive gender equality and climate change responses. Finally, as most of the projects / programmes' management committees are male-dominated, there is minimal decision-making by the few women who are involved.

Having discussed perceptions at administrative levels, it is important to be informed about the perceptions of parliamentarians, who are mainly responsible for passing legislature in Kenya. Despite the presidential directive on affirmative action, gender is not actively promoted at parliamentary levels and climate change is regarded by the interviewed parliamentarians to be too technical for them to handle. However, some Members of Parliament (MPs; men and women) have formed an informal group under the auspices of the Forest Action Network (FAN). This group of likeminded MPs meets regularly to discuss and decide on strategies on environment-related issues before they are brought to parliament. FAN brings several other NGOs and environmental activists to make presentations to the MPs. It also conducts research, which in turn informs and helps the MPs when debating on environment-related issues in the parliament. Through FAN, it was possible to hold informal discussions with individual MPs (Lelo et al. 2010).

In addition to the informal contacts, the environmental perceptions of the MPs were further gauged through their utterances (informal statements) captured through the print and electronic media. The members whose views were examined included those from areas with topical environmental issues, such as those from regions neighbouring Mau forest, Mount Kenya, Mount Elgon and those from semi-arid and pastoral communities of north-eastern Kenya. Except for the women members of parliament from the arid and semi-arid regions, the rest did not pay special attention to debates on environment (Lelo et al. 2010). This situation highlights a dire need to create awareness among policy makers so that they can champion the formulation of a gender sensitive national policy on climate change.

In the following section, climate change-related interventions of government ministries, departments and agencies (MDAs) are examined to ascertain how they account for gender and promote gender equality.

5 Gender equality practice in climate change-related responses

Having established in the previous chapter that legal and policy frameworks that address gender exist, but that gender awareness is still generally low, this chapter examines how government organisations address gender inequality in practice. It also examines how the responses to climate change affect gender access to resources, gender roles and responsibilities, power and decision-making, voice and participation as well as gender needs, priorities and preferences. Having such information can provide insights on the realities of promoting gender equality and how gender equality can be improved.

The adaptation continuum ranging from a major focus on development / vulnerability reduction measures at one end to impact reduction measures at the other extreme, hints at a diversity of measures that can be undertaken to respond to climate change. The diversity of government organisations sampled reflects also the diversity of responses to climate change. While the Ministry of Planning, National Development and Vision 2030 responds to climate change and gender by mainstreaming gender and climate change into the planning process as covered in Vision 2030 and the 2008-2012 medium term plan, respondents from other ministries highlighted the implementation aspects of responses at field level. This can be by vaccinating livestock before the onset of rains, mass de-worming of livestock during the rains, parasites control (fly control) during the rains as is done by the Ministry of Livestock Development. Responses to climate change can also be in the form of tree planting along the water catchment areas to preserve water sources and increase biomass as promoted in a project of the Ministry of Agriculture. The respondents highlighted that both indigenous trees and agro-forestry trees are planted. In order to help plant trees for environmental protection and for the provision of wood fuel the project started tree nurseries for women groups. To protect the soils, the project supports the construction of soil conservation structures and provides irrigation infrastructure to provide water for irrigation for food production in the arid areas. In the Ministry of Water and Irrigation some of the responses to climate change focus on rain water harvesting and storage-pans, dams, bunds, rock catchments. These infrastructures help to harvest water for use during droughts and to harvest excess water to avoid flooding. Integrated water resources management and water use efficiency is fostered by promoting water recycling, re-use and reclamation to ensure more efficient use of the scarce resource. The Ministry also supports rain water harvesting for agricultural production through promoting ways to manage agricultural water to enhance food security, reduce soil erosion and land degradation. It supports efficient water use by promoting drip irrigation, green houses, lining of the water conveyance canals, converting open conveyance systems to closed systems, introducing water use fees; harvesting and storage of water, water catchment protection and conservation by planting trees around water dams and pans to reduce sedimentation.

Through the above responses, the respondents report various insights gained on how a gender equality approach improved their interventions. For instance, before the focus on gender equality, women from pastoralist communities were completely left out both in participation and benefiting from the activities, but now, with a gender equality approach,

they are actively involved and benefiting. However, the respondents highlight that some responses are limiting through the time involved and other responses just perpetuate inequality, because the first contact points are the male household heads and the male elders.

In addition, responses have differential impacts on different categories of people in society; hence the need to fully understand the status and circumstances of different groups before the programme is designed and implemented. While programmes / projects usually meet their immediate objectives of increasing family incomes much more needs to be done to ensure that the incomes bring equitable improvements within families. For instance, it is important that responses of government Ministries, Departments and Agencies (MDAs) consider how they influence gender roles and how these in turn can affect the success or failure of interventions.

5.1 Responses and their interactions with gender roles and responsibilities

Due to the differential roles and responsibilities of women and men, certain development activities and responses to climate change can increase or decrease the workload for women / girls and men / boys. For example, the restocking activities of the Ministry of Livestock Development increase incomes and decrease the workload of women and men but increase the workload of boys and girls: with larger herds, the boys and girls spend more time for grazing and watering livestock, respectively. The Ministry of Agriculture supported women's groups' tree nurseries increase the workload of women but also diversifies women's sources of income. In recognition of this fact, the Ministry also encourages men to increase their workload to help women, especially in growing food crops as opposed to commercial crops. Rainwater harvesting for domestic use decreases time spent by women / girls to fetch water. In addition it also increases food security and thereby reduces men's burden in their role as bread winners. With rainwater harvesting, boys in pastoralist communities get water and pasture nearer their homesteads, saving them long treks to distant grazing grounds. In irrigated agriculture, men and women tend to spend more time on the farms due to operations and maintenance issues, unlike when they rely on rain-fed agriculture. However, irrigation increases food production and by extension household food security, thereby reducing the time spent in search of food and the stress that women and men undergo to source for food under drought conditions. The improved food security also benefits girls and boys, who can now concentrate on their school work.

In contrast, gender division of labour and expectations affect government's responses to climate change as it influences participation by local men and women. For instance, in some communities in arid areas, women and girls look after sheep and goats, while men take care of cattle. Thus, women and girls must be and are involved in interventions targeting sheep and goats, while men need to be involved in those targeting cattle. In the irrigation project discussed earlier, both men and women have reduced their livestock and now grow crops as an additional livelihood: thus, they constitute the target group. Planting trees and constructing rainwater harvesting structures are men's work – as such men constitute the majority in such programmes. According to a respondent, most public / sensitization meetings are mainly attended by men, since women have a lot of work to attend to i. e. reproductive work, hence they rarely have time to spare for meetings. In addition, the notion that men will always be in decision-making meetings makes women not bother much about attending such meetings. Because men are the heads of households, respon-

dents argued that they benefit from government interventions more than the women, since ultimately, they (men) make the decisions.

On the other hand the MDAs' (Ministries, Departments and Agencies) responses to climate change affect the gender division of labour. For example, by saving time spent on certain duties or by completely removing the labour needs of certain activities. In other circumstances, the MDAs' responses do not affect gender division of labour. For example, in vaccination programmes, *"more women will respond by bringing more sheep and goats for vaccination while still performing their other duties."* In other cases, most activities are done in groups thereby involving both genders. In certain other cases development and adaptation activities can reduce the time spent on certain activities and offer new income earning sources. For instance, in the irrigation projects, women still rely on men mostly for operations and maintenance of infrastructure and since the new techniques for water applications are not so labour intensive, families can spare time for other activities. However, since most men are involved in the construction of dykes, they can also earn some wages in such projects. Integrated projects that address the various roles of women and men are sometimes promoted. For instance, integrated projects such as irrigation with a water supply component brings water closer to people both for productive and reproductive roles, as such both women and men benefit. In addition, where agro-forestry is practiced, men are now involved in trimming the trees hence women can save time in collecting firewood.

5.2 Responses and their interactions with gender access to resources and opportunities

MDAs' climate change responses should ideally improve gender access to resources. This can be achieved through mainstreaming gender concerns in the planning and budgeting process as is done by the Ministry of Planning, National Development and Vision 2030, or through training as is done by the Ministry of Livestock Development: *"We train community animal health workers to assist in detecting various diseases affecting their livestock."* It can also be through income generating activities targeting women and men as in the irrigation scheme of the Ministry of Water and Irrigation. Vaccination and treatment also enhances opportunities for both men and women because through vaccination, both men and women own healthy livestock that can fetch higher prices than unhealthy animals.

However, accounting for gender differentials in existing property rights, access to and control of assets and resources (e. g. land, water, forest products) is not an explicit consideration of many MDAs' responses but is addressed in an ad-hoc manner if property rights become an issue during project implementation. Existing property rights, access to and control of assets and resources seems to be taken as given by many MDAs and their influences on project outcomes are often not initially considered. However, in a Ministry of Agriculture project, it is foreseen that any product developed for the community should be gender friendly to all. Thus the project ensures that any credit institution introduced to the scheme will be the ones that do not side-line women by asking for title deeds and other requirements.

As such, the MDAs' responses to climate change can influence women's, and men's access to assets (e. g. land, water, forest products). In cases where both women and men

have ownership, both categories can equally gain in different ways from the response activities. For instance, both women and men gain from vaccination and treatment because women own small animals, while men own larger ones. However, this more or less established ownership right is not common. In other cases, the MDAs use quotas to ensure women's access to resources and benefits. For instance, in a Ministry of Agriculture project, the project works with Water Users Associations (WUA) comprising men and women: Water users associations are formed with representation and leadership which discuss water usage by the community and women usually have a slot of one-third representation. According to a respondent, *"the WUA is supposed to acquire a piece of land where the project will construct an office block, crop collection point and a marketing shed with a cooler. This will be owned by men and women"*. In addition, through rainwater harvesting, women gain access to structures and land. However in certain cases, such as in the Ministry of Water and Irrigation project, men have more access to the benefits accruing from the irrigation projects, while women only have access where the household is headed by a female.

Finally, long-term gains have to be weighed against short-term profits. For instance, due to a project, demand for farm labour increased making some young boys to drop out of school to work as farm labourers due to the quick money they anticipated to get.

5.3 Responses and their interactions with voice and participation

It is generally assumed that gender representation reduces gender disparities. As such, the MDAs use various approaches to ensure different degrees of representation in their responses. While some existing legal frameworks address gender (see Table 2), specific project design such as working only with a registered WUA ensures women's access to project resources and benefits as one of the requirements for registration is that 30 % of members are women. In line with gender mainstreaming, government activities are expected to have a 30 % women and youth representatives, respectively. Through such measures (registration requirements) both men and women can access the project resources and benefits obtained. Other approaches include giving both women and men equal hectares of land to irrigate, during the provision of water for irrigation.

Although disaggregated data was not collected on the proportion of women, men, boys and girls participating in the organisations' projects / programmes, respondents estimate that in the livestock sector and in tree planting programmes, there are more male participants than female participants. In the irrigation projects and programmes more men than women are also involved, while in rainwater harvesting, women are generally more. As one respondent stated *"I cannot tell the exact figures but women are more than men and girls more than boys when it comes to water issues"*.

While various development and adaptation activities are on-going, little or no analysis has been carried out by the MDAs on the obstacles to men's and women's participation in responses to climate change. Where such analyses exist, they are in a very rudimentary form but not comprehensive for a whole ministry, that is to say they are mostly project-based. In a Ministry of Water and Irrigation project, gender data sheets have been used to show the distance walked by women per province in search of water. Such projects also

use sex-disaggregated reporting, and pro-poor policies that relax rules for disadvantaged groups to access resources and services offered by the Ministry.

Nevertheless, a lot of training is needed for women to make them have equal participation in the irrigation schemes. Respondents also report that in flood disaster management older women's and men's traditional attachments to their ancestral lands make it very difficult to relocate them to safer grounds to avoid the effects of floods. In addition, livestock vaccination and treatment is not wholly accepted by everybody and some even view them as a ploy to destroy them through biological means.

The consultation of men's, women's, boys' and girls' views on climate change responses prior to project initiation is not common. Often the responses are still largely designed at the headquarters in Nairobi, with little or no influence from the communities. In some Ministries the community only gets informed through the provincial administration on the period and the thematic and geographic areas in which interventions are planned. In other Ministries, such as agriculture, participatory approaches are commonly used. The ministries also create awareness on climate change and incorporate gender needs in decision-making, implementation, monitoring and evaluation of projects. Others integrate local knowledge, such as the past behaviours of rivers and rainfall in their target areas, into their project design and implementation.

In such cases, consultation of actors takes different forms. This can be by directly consulting the leaders, mainly the chiefs, councillors, village elders and sheiks, addressing the local communities through notices and public address systems at water points; it can also be through addressing both men and women in separate groups. For instance, in livestock interventions, to ensure women's participation, women group leaders are sent to convince other women to bring their livestock for vaccination and treatment. In such cases, the Veterinary Department managed to vaccinate and treat more sheep and goats (which belong to women) than cattle and camels which belong to men.

To improve the participation of men, women, boys and girls in their activities, the MDAs adopt various approaches. This could be by including some locals in the ministry's team (e. g. Ministry of Livestock Development) to attract the locals and persuade them to bring their livestock for vaccination and treatment. It could also be through the choice of the intervention topic – for example, fetching water is an activity largely carried out by women / girls in most societies, as such more women are likely to participate in response activities that aim to increase access to water for domestic uses. Thus, the Ministry of Water and Irrigation involves boys and girls in the *Kazi Kwa Vijana* (Jobs for the youth) initiative whereby un-employed youths are allowed to work during the implementation of projects (e. g. during the dyke constructions, pan construction, planting of trees) for payment.

5.4 Responses and their interactions with power and decision-making

Decision-making at the household level is crucial to achieving gender equality as households reproduce gender roles and responsibilities as well as decide how resources are allocated and benefits shared (World Bank 2001). However, influencing household decision-making to reduce gender disparities is not an explicit focus of the MDAs' response activi-

ties. In addition, the MDAs' response activities have little or no influence over women's and men's control over decision-making at the community level since, as one respondent argues, under the current constitution, resources are still solely under the control of men. Depending on the context, the local patterns of decision-making also affect a Ministry's response activities to climate change. For example, men are the sole decision makers in Somali counties and this can delay implementation as they have to be consulted on all issues.

Yet some MDAs encourage women to take up positions in decision-making levels of the project management committees, thereby influencing decisions on use of the proceeds from irrigated agriculture in paying school fees and meeting other family expenditures.

Some other MDAs' responses have also improved the capacity of women to influence decision-making by involving them at different management levels of WUAs, especially in the siting of the water intake points, as women know better which streams are permanent and which ones dry up fast so as to have uninterrupted supply of water to the farms during the dry seasons.

In the Ministry of Water and Irrigation project, even where men have more access to the benefits accruing from the irrigation projects than women, the Ministry promotes the power balance between women and men in terms of decision-making on where to construct the water harvesting structures. Through their labour contributions on the construction of water infrastructures, women then have a say in water supply and usage.

5.5 Considerations of gender needs, priorities and preferences

Generally, many MDAs adopt a blanket-approach in response interventions based on their understanding that the government's target group is "all". The MDAs focus mainly on development needs (one end of the adaptation continuum with mainly a vulnerability-reduction focus) and through this focus also address practical gender needs. Since practical gender needs overlap with development needs, many MDAs' activities address the different needs of women and men using this blanket approach. Through this blanket approach, the respondents argue that they are sensitive to the different needs of men, women, boys and girls. For instance, a respondent argued that vaccination helps in preventing the outbreak of major diseases during the rains and de-worming treatment of fly control helps in getting healthy animals that are drought tolerant. As such the whole citizenry, whether men or women, benefit. In addition, due to free access (non-payment), vaccination and treatment by the veterinary department enhances the participation of all people and thus serves the practical needs of women and men in keeping their livestock healthy.

A blanket approach is also used in technical training courses or by providing nearby water supply through rain water harvesting, which is beneficial for both men and women. The interventions bring water closer to women, while for men it reduces the long distances travelled to water livestock. Thus, such responses improve access to water supply for both productive and reproductive purposes. In some cases development and adaptation responses have also created livelihood niches for women and in other places, for young men such as selling water as a business in water kiosks.

In other cases, such as in the Ministry of Water and Irrigation project, gender professionals are engaged to assess the gender gaps in each irrigation scheme, and to come up with targets and indicators for measuring these gaps. Since many development interventions improve the living conditions such as in water supply, the school attendance of girls increase due to improvement in access to water supply; households improve their food security and the increased per capita income triggers investment in other areas.

Yet responses to climate change can have different negative and positive effects on women and men, and women's and men's perceptions about development and climate change responses can limit the effectiveness of such interventions. MDAs often do not consider the possible and different negative and positive effects on women and men at the start of a project since the key factor is the officers' perception of an intervention being good for the society in general. As issues come up, either negative or positive, they are then addressed in the course of the project / programme. For instance, negative outcomes such as those related to the large dams and pans that lead to mosquito breeding points which increase malaria incidences; the increase in water borne diseases e. g. bilharzias due to more frequent contact with stagnant water, were reported. However, positive outcomes such as the increased income per capita / family or improved / increased food security were also reported.

The respondents did not identify any strategic gender needs in their thematic areas but argue that they already address the identified needs of women and men through the previously mentioned blanket approach. However, the discussions in section 5.4 on responses and decision-making show that the organisations do consider strategic gender needs. To improve the consideration of gender needs the respondents propose that MDAs offer more training and excursions in equal measures to both men and women, involve them at all stages of the project from inception to completion, especially taking into consideration their specific needs during project / programme design. They also highlighted that the MDAs can accommodate men's and women's needs in future through training and the implementation of the presidential directive on affirmative action.

6 Insights for promoting gender in climate change-related responses

6.1 Challenges to promoting gender equality in climate change-related responses

Gender is still a relatively new policy instrument in Kenyan public administration as well as among the NGOs. It thus faces various challenges ranging from its acceptance as a policy instrument, the lack of awareness about its importance, to the inadequate expertise on how to integrate gender among other factors.

The political and public acceptance of gender as a policy instrument is still low. For example, some respondents reported that, during referendum for Kenya's new constitution, some male politicians campaigned openly against the new constitution⁴ because of the

4 The constitution has been accepted by Kenyans in a recent referendum in 2010.

clause in the constitution that gave women equal rights of inheritance. There is also a low level of awareness among the communities and policy makers on the issues on climate change and its interactions with gender. Thus the members of parliament are not under pressure from their electorate to push to centre stage the climate change agenda.

Most of the organisations surveyed lacked qualified staff on climate change, gender or both. This issue was closely related to poor financial base and thus inability to hire and retain qualified staff. Interviews with higher-level officers show that implementing the 30 % presidential directive on women's representation is difficult due to the lack of qualified women professionals at middle and higher levels.

Moreover, the respondents noted that responses to climate change are still largely a donor-driven process. The respondents argued that donors sometimes dictate which programmes they wish to see their funds spent on. This conditionality makes some organisations tailor their programmes to suit donor demands, which is often also not focussed on gender. In addition, the over-dependency on donor-funds means that where funds are not accessible or guaranteed the organisations tend to scale down programmes depending on the funding levels. This affects responses to climate change and by extension the integration of gender aspects into such responses. Where national concerns and donor interests drive the organisations' activities, they may be at variance with the local level needs such as addressing the impacts of climate change locally, or using a gender perspective.

Most of the NGOs interviewed operated independently and were thus ineffective as advocacy groups. A few organisations have managed to create an informal umbrella organisation called Kenya Forest Working Group (KFWG). This group lobbied and played a key role in the passage of the Forest Act.

Despite participatory approaches, most organisations interviewed do not really engage the locals and especially women and other vulnerable groups in their activities as they relate to climate change. Yet, if gender is not integrated at the design stage, effectively integrating it later becomes a challenge. Thus inadequate social analysis before programmes are defined and designed can undermine otherwise great economic gains from such investments.

Furthermore, the interpretation of climatic information is a challenge because of the scientific jargon involved. This is compounded by language barrier between communities and scientists. The interpretation tends to dilute or lose the meaning and thus the message becomes lost. Some of these and other challenges have also been identified (see Box 3) by Ongayo and Kimemia (2008).

Barriers and constraints to women and men participating and benefiting equally from the government's climate change responses were identified to be the lower education levels and poverty of poor women and men, entrenched views on gender roles and responsibilities, as well as the power structures in the society / family. Others include the lack of representation of women at decision making levels; the limited exposure to climate change despite existing experiences with climate variability; the control of resources mostly by men at the project / programme levels; inadequate resources to achieve the set out programme targets; and persisting cultural beliefs.

Box 3: Factors hindering gender-equality in Kenya

Various factors account for the under-achievement in promotion of gender equality in Kenya. These include but are not limited to:

1. Low and unpredictable investments by both government and donors for gender equality.
2. Weak capacities in Gender Responsive Budgeting to eliminate gender biases in national development.
3. Little concern for national ownership of women in poverty reduction strategies and other national development planning.
4. Weak national dialogue for gender equality.
5. Little analytical work in gender equality.
6. Little harmonization in support for gender equality among donors apart from MDG3 target on women's participation in the Gender and Governance Programme (GGP) managed by UNIFEM
7. Lack of a national accountability framework for gender equality.
8. Limited baseline data for monitoring gender equality beyond the MDG baselines.

Sources: Ongayo / Kimemia (2008)

The government organisations themselves also face challenges in promoting gender equality in their responses to climate change. This can be in terms of inadequate staffing, the land ownership rights culturally bestowed on men which makes it difficult for government officers to address women on certain land management matters; lack of adequate resources to achieve the set out targets; lack of representation of women at decision making levels; lack of adequately trained gender and climate change experts within the ministries' frameworks to specifically deal with the promotion of gender equality and climate change, and the lack of gender lens at all stages of the project cycle management.

Faced with these challenges, it remains to be seen how gender equality can continue to be implemented in the practice of responding to climate change. Since gender is an older concept relative to climate change, the question is whether there are any lessons to be learnt from the experience of mainstreaming gender for the mainstreaming of climate change responses. The following section addresses this point.

6.2 A double mainstreaming of gender and climate change

Climate change and gender are two cross-cutting issues critical to development. While gender equality questions the current distribution and access to resources and benefits as well as socio-cultural norms and values, climate change responses aim to increase the efficiency of resource use and to protect various economic sectors from its adverse impacts and also addresses distributional issues. At a first glance, one may conclude that lessons learnt from mainstreaming gender (distributional issues) into development activities may not yield much insight on mainstreaming climate change (conservation, efficiency and protection as well as distributional issues) into development.

However, one lesson from gender mainstreaming that may yield insights for climate change responses is the issue of missing components for effective mainstreaming of gender. "Missing components" refers for example to the realisation during the implementation of gender mainstreaming measures of the lack of adequately qualified women professionals to fill the positions in some middle and upper cadres of government organisations despite government affirmative action of at least 30 % female employment at various gov-

ernment levels. Another point is the persisting lack of awareness or false perception of gender questions as women's issues even 20 years after gender mainstreaming was launched in international cooperation. In analogy, a question that must be asked in climate change responses is if we already have the resources and the enabling framework conditions for making responses to climate change successful or if we have to realise, half-way through a climate change response process, that some key elements are missing or not yet available. Put simply, how far have current measures created the correct perceptions about climate change and how adequate are the existing adaptive capacities needed for adapting to and mitigating climate change?

Recognising these difficulties, complementary ways sought to address gender equality have become not to use only gender as an entry point but rather to also use human rights and human security. The use of human rights and human security as values conceptually related to gender equality can soften the still noticeable general aversion in attempts to mainstream gender. Thus, the goals of double mainstreaming of gender and climate change (cf. Rodenberg 2009) may be better approached by incorporating a human rights approach in addition to a gender approach which is already full of values and prejudices. Another complementary approach could be to highlight to decision-makers the economic losses of development strategies that perpetuate inequality.

As cross-cutting issues, development cooperation should mainstream gender and climate change in all partner countries and within their various sectors of operation. The BMZ Gender Action plan 2009-2012 has gender-specific responses to climate change as one of its thematic areas, whereby it aims to examine systematically the risks that climate change poses to women (BMZ 2009).

To further promote gender equality or gender sensitive responses to climate change, the following section discusses various options.

6.3 Implications and options for promoting gender equality in CC responses

Since both gender and climate change, taken separately, are new to the Kenyan policy making, the inter-linkages between climate change and gender hints at an epistemic community in the making. As such, where these two issues are considered, it is either in acknowledging that both gender inequality and climate change are threats to sustainable development and livelihoods. The few policy documents that go further such as Kenya Vision 2030 or the Kenya draft wildlife policy 2007 make some elaborations on how these two issues, taken separately, hinder economic growth and sustainable development. However, detailed links between the two policy arenas are almost inexistent, except for the Kenya National Climate Change Response Strategy (KNCCRS) which explicitly addresses the inter-linkages between climate change and gender and also sets out concrete measures to address them. Rodenberg (2009) also highlights the missing linkages between the two challenges of gender inequality and climate change at the bilateral and international levels. Furthermore, compared to the LDC National Adaptation Programmes of Action (NAPAs) in which only a third of the NAPAs made explicit reference to gender equality or equity as an important policy instrument (cf. Schalatek 2009), the KNCCRS not only mentions gender equality but also provides concrete resources to addressing the problem. This achievement also needs to be interpreted in the context of an international

climate policy wherein gender has only recently been integrated into the negotiation texts of the United Nations Framework Convention on Climate Change (UNFCCC) during the Copenhagen and Cancun conferences.

Secondly, those organisations and government MDAs working on climate change issues are not the same organisations that have focussed on gender and gender mainstreaming, so both communities need to be brought together. This gap can be closed by including gender desk officers in the Kenyan negotiation teams to the Multilateral Environmental Agreements, in particular the UNFCCC process. This way they become immersed in the climate change discourse and can link them with gender perspectives.

Thirdly, the conflict between traditional and modern rules and institutions, the low level of political and public acceptance of gender as a policy instrument and the low level of awareness of the public of these issues and their inter-linkages, call for a broad-based sensitization campaign directed at various actor categories inside and outside Kenyan public administration. Despite progress made so far, *“gender is still considered largely as a women affair”* as a respondent puts it. The presidential directive on 30 % female representation in all government organisations makes a strong statement about the favourable political support for gender mainstreaming at the highest political levels. However, at other levels, such as the parliamentary and director levels, this support for gender mainstreaming and gender equality have not been that obvious, with the exception of the Ministry of Gender, Children and Social Development, whose duty it is anyway to promote gender equality. There is thus a need for conducting gender mainstreaming sensitization workshops involving all staff and stakeholders as well as continuous training for the gender desk officers; sensitization is equally needed on climate change, its impacts, response options and their linkages with gender.

Furthermore, targeting policy makers particularly Members of Parliament (MP) to sensitize them on and create awareness on the gendered impacts of climate change is necessary. Specific programmes will need to be spearheaded by a lobby group with resources to mobilise the members of parliament. The parliament is the nation's top policy making organ and for a policy to pass through the rigors of debate a significant number of members have to give their support. This can be done through series of tailored workshops to sensitise the MPs. Such workshops should have among its objectives to raise the awareness of the MPs that climate change is a reality in Kenya, and men and women have gender-specific roles they can play. This will also include changing the mind set of many actors in Kenya that women need to be more involved in decision-making right from the household level to the highest policy making organs in the country.

Moreover, the introduction of Women's Development Fund is a positive initiative towards economic empowerment of the female population, but its implementation and progress needs to be monitored to ensure that poor women equally benefit. Although a recent survey by the Ministry of Gender, Children and Social Development shows that some government departments have already achieved the 30 % representation of women (RoK 2010b), there is still a need to review government policies and directives on gender equality, in particular the 30 % affirmative action for the senior and middle level positions in governments where the decisions are made. Through continuous project monitoring and evaluation and mid-term project review, the identified positive and negative effects of climate change on men and women can be addressed.

There is also a need to improve the collection and management of adequately disaggregated data by gender to address the challenge of dearth of data required for appropriate in-depth analysis and to support the implementation of gender equality in climate change responses at all administration levels. Already the KNBS collects various socio-economic data disaggregated by gender in the Kenya socio-economic database. To further increase gender-disaggregated data, the gender nodes in all the ministries need to raise the awareness of their fellow officers in the ministries about the importance of gender-disaggregated data as well as bringing about directives from the top management to disaggregate socio-economic data during collection. This will provide detailed data about gender equity and highlight exactly where to foster men or women. These goals can be achieved by increasing resource allocation to the KNBS and other MDAs where gender is a concern.

While gender differentiated census data exists, gender differentiated data on the impacts of climate change are non-existent. With the introduction of gender units in all government ministries, the Kenyan government has established a basis for mainstreaming gender issues and gender equality into its development activities. The officers in these units now need their capacity to be increased on climate change matters to enable them identify entry points for gender sensitive climate change responses in their ministries.

Since each ministry has a gender focal point, it is important to coordinate the activities of these units by forming a platform where issues concerning gender and climate change as well as other topics can be discussed. In their capacity as gender officers they can partner with various women and gender NGOs involved in the UNFCCC process such as the Gender CC (Climate Change) network to access current international knowledge and discourses on climate change and gender. For this purpose, a two day workshop is proposed that brings together the gender desk officers, the climate desk officers from the Ministry of Environment and the international professionals conversant with the gender and climate change discourse. Development cooperation could finance such a workshop.

Awareness of gender mainstreaming and adaptation to climate change as two separate strands of knowledge and action is growing. However, awareness about the synergies and the trade-offs that can or arise as a result of a narrow focus on these separate strands is largely lacking. There is therefore the need to increase awareness on the inter-linkages between climate change, development interventions, climate change responses and gender equality.

Many climate change responses do not integrate local men's and women's experience and views. Rather, a top-down approach still dominates, whereby the headquarters design the responses and deliver these to the locals without the locals (whether men or women) having much influence on the design of the response activities. An approach of the knowledgeable centre transferring knowledge to the inexperienced margins seems to dominate. Yet locals, both men and women, undergo different experiences which should be integrated into the climate change responses in order to increase their effectiveness in reducing vulnerability to climate change impacts.

For the Kenyan government to effectively promote gender equality in climate change adaptation and mitigation, the communities need to be sensitized about the realities of climate change, even though they already have knowledge and experiences of climate variability. More awareness of gender and climate change needs to be created. Similar to the

gender desks, the NEMA and the office of the president could create a climate change desk in each ministry / department. Since climate change as a topic is vast and is the defining issue for development in this century, investments made in climate desk officers in the ministries will be outweighed by the expected benefits. Such an approach can yield multiple benefits, such as increasing awareness in the ministries about climate change, tailoring climate change adaptation and mitigation to the activities of the ministries and increasing the links between gender, climate change and sectoral development. The NEMA could train the gender desk officers on climate change issues. The gender desks of the ministries will benefit from periodic training on climate relevant issues, ranging from international climate policy, on the national obligations towards international climate policy and gender equality, on the various instruments of the UNFCCC and on how these affect gender. This will enable the officers to better mainstream gender and climate change into the activities of their various ministries, departments and agencies.

Development cooperation for its part should support the Kenyan government to meet its objectives of achieving gender equality by facilitating the training of the gender desk officers on various issues including the synergies between adaptation and mitigation on the one hand and gender equality on the other. Support could also be in facilitating awareness campaigns on gender equality and climate change in order to make the context within which gender equality is being promoted friendlier to receiving such development ideas. The development and climate change community could also adopt gender equality indicators as a criterion for funding and supporting adaptation and mitigation projects in locations where gender disparities are greatest. The German development cooperation needs to monitor progress and evaluate the outcomes of the Kenyan gender mainstreaming process and integrate the insights gained into its development cooperation and climate change response activities in Kenya.

Gender equality in responses can be directly improved by focusing on gender access to resources, gender roles and responsibilities, power and decision making, voice and participation as well as gender needs, priorities and preferences. However, as has been shown, improving equality in one gender dimension can lead to trade-offs in another gender dimension. Thus, trade-offs exist as progress cannot be achieved equally and simultaneously in the different gender equality dimensions. For instance, while the participation of women in decision-making is increased, this does not reduce the benefits that continue to accrue more to men in some interventions.

The low female enrolment in higher education levels means that there are few women professionals who can be employed at higher levels of policy making. This not only affects the climate policy sector but also other economic sectors. To address this disparity, an explicit implementation of presidential directives with public campaigns to improve the societal conditions for promoting women's education is necessary to address any existing "glass ceiling". While the Kenyan government has recognised the need for increasing the number of female enrolments, development cooperation could support the government by channelling funding to women's education, at least until the disparity has been significantly reduced.

Women's empowerment should remain a focus of the government and development interventions in order to increase the number of women in organisations dealing with climate change issues. As gender equality has become legislated in Kenya, the groundwork done

by women organisations in the 1980's should continue as this is also one way of sensitizing the civil society about gender issues. Such organisations have become dormant and need to be resuscitated. If the assumption holds that a higher representation of men or women fosters the visibility of men or women's perspectives in the subject matter addressed by the organisations, then it is likely that women's perspectives do not receive the relevant attention. However, it is important to note that this scoping study did not cover this aspect.

The Kenya National Climate Change Response Strategy is referred to as "*the key government climate change agenda guide*" (RoK 2010a, 3) that will inform all climate change related activities including the formulation of a National Climate Change Policy. With the KNCCRS, the government has demonstrated its willingness to tackle the climate change problem. However, a National Climate Change Policy can expedite the integration of climate change into other government development policies and plans. However, such policy formulation needs to be initiated and pushed through parliament. Kenya is endowed with many environmental non-governmental organisations which could be a powerful lobby group. However, these organisations operate independently of each other and do not have an umbrella body. Based on the experience of the Kenya Forest Working Group (KFWG), which lobbied and succeeded in the passing of the Forest Act, with concerted effort it is possible to mobilize the NGOs (in cooperation with NEMA) to push for the National Climate Change Policy in Kenya. With the recurrent droughts, with related food and water shortages in the country it is not difficult to mobilize the public to see the connection between these extreme events and the climate change issues. In fact, farmers across country have been testifying about the changing weather conditions where they are no longer able to predict the seasons as they used to do before. The NGOs will need to package information correctly and push the debate into the public domain. Once the policy makers sense what the public wants they will readily take over and make bills which would eventually be debated in parliament. As a start, the Forest Action Network (FAN), which has already been putting together an informal group of Members of Parliament to discuss environmental issues can team up with other NGOs and other stakeholders to lobby for a national climate change policy.

Finally, the analyses also highlighted that besides local influences many policy documents are informed by international agreements, laws and conventions (government commitments and obligations to these international laws), or refer to international agreements such as the MEAs and gender conventions as a basis for policy making. This reference highlights the importance of international policy and discourse for national policy making and development. As such, efforts at the international arena to advance the issues of climate change adaptation and mitigation as well as gender equality and their linkages need continuous support as they permeate to national and local implementation levels.

7 Conclusions

This paper analysed how Kenyan government and non-governmental organisations promote gender equality in climate change-related responses. Data was collected through interviews, discussions and the review of documents. Analysis shows that gender has become a policy instrument with political support from the highest levels (office of the President). This political support is reflected by the presidential affirmative action on gen-

der, the women investments funds, and the establishment of gender focal points in all government departments as well as setting certain goals on gender equality. However, gender is still at its infancy and faces many challenges, among them, the limited awareness in public service about the importance of gender-sensitive interventions, the still limited support for gender at parliamentary levels despite the presidential directive, and in part due to the limited number of women professionals. In addition, while gender mainstreaming has been established on “paper” and plans, implementation at field levels remains a big challenge which need to be addressed.

Equally, climate change is still relatively new, despite long-term experience with climate variability. As such it also needs to be mainstreamed into government activities. The impacts of climate change on the rural populations shows that women are disproportionately affected in part due to their gender roles and responsibilities and their limited access to resources. These dimensions need to be accounted for in responses to climate change to ensure that gender inequality is minimised.

Responses to climate change-related issues at field levels can also lead to trade-offs between genders whereby an increase in the resources of one gender can translate into more work for the other gender due to prescribed gender roles and responsibilities. These trade-offs equally need to be accounted for.

In practice, many government officers claim to address gender through a “blanket” approach where “all” is the target of public interventions, with the argument that the government is there to serve “all”. However, with the sensitization already occurring at government organisational levels, the various government responses to climate related issues still promote gender equality through ensuring that women have at least a 30 % representation in activities, by encouraging women to take up leadership positions in government projects and programmes. Government officers also target women through quotas, ensuring equal representation in certain interventions and influence participation through their choice of interventions.

Nevertheless, the gender discourse and practice are still separate from the climate change discourse and these two communities need to be brought closer to better address the inter-linkages between them. A potential role for development cooperation could be in supporting processes such as sensitization for the general public and support training workshops for the gender officers in climate change issues. In addition, the government of Kenya could establish climate desk officers in all departments similar to the way it has established gender desk officers. That way climate change issues can be brought closer to government practice.

While both fields are relatively new, mainstreaming climate change could profit from insights from gender mainstreaming. These pertain to two dimensions, ensuring that awareness is created about the subject matter in such a way that it does not foster false perceptions and ensuring that the resources needed for responding to climate change exist before undertaking such interventions.

Finally, this study has provided insights on how gender is currently being promoted in government responses to climate change-related interventions and options for their improvement. Most studies on climate change and gender focus mainly on the gendered impacts of climate change, without examining how responses to climate variability and cli-

mate change, account for gender, or improve or worsen gender inequalities. This study makes such a contribution. More in-depth studies are needed that focus on individual ministries to assess their progress towards achieving gender equality in development, adaptation and mitigation interventions and their outcomes. Further studies will also be needed in a few years to evaluate the success of the various gender instruments established by the Kenyan government to promote gender equality and their interplay with climate change responses. More data will also then be available for such an analysis.

Bibliography

- Acey, C. (2010): Gender and community mobilisation for urban water infrastructure investment in southern Nigeria, in: *Gender & Development*, 18 (1) 11–26, doi: 10.1080/13552071003599970
- Agarwal, B. (2003): Gender and land rights revisited: Exploring new prospects via the state, family and market, in: *Journal of Agrarian Change*, 3, 184–224
- Ambenje, P. G. (2000): In proceedings of an expert group meeting on early warning systems for drought preparedness and drought management, Lisbon (WMO/TD No. 1037), Eastern and Southern Africa Drought Monitoring Centre, Nairobi, September 5–7
- Angula, M. (2010): Gender and climate change: Namibia case study; online: <http://www.boell.de/downloads/ecology/Namibia.pdf> (accessed 23 Oct. 2009)
- Arku, F. S. / C. Arku (2010): I cannot drink water on an empty stomach: a gender perspective on living with drought, in: *Gender & Development*, 18 (1) 115–124, doi: 10.1080/13552071003600091
- BMZ (Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung) (2009): Entwicklungs-politischer Gender-Aktionsplan 2009–2011
- Boko, M. et al. (2007): Africa, in: M. L. Parry et al. (eds.), *Climate change 2007: impacts, adaptation and vulnerability, contribution of working group II to the fourth assessment report of the Intergovernmental Panel on Climate Change*, Cambridge: Cambridge University Press, 433–467; online: <http://www.ipcc.ch/pdf/assessment-report/ar4/wg2/ar4-wg2-chapter9.pdf> (accessed 9 June 2008)
- Chen, H. et al. (2006): New records of the anopheles arabiensis breeding on the Mount Kenya highlands indicate indigenous malaria transmission, in: *Malaria Journal* 2006 (5); doi: 10.1186/1475-2875-5-17
- Christensen, J. H. et al. (2007): Regional climate projections, in: S. Solomon et al. (eds.), *Climate change 2007: the physical science basis, contribution of working group I to the fourth assessment report of the Intergovernmental Panel on Climate Change*, Cambridge: Cambridge University Press; online: <http://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wg1-chapter11.pdf> (accessed 9 June 2009)
- Cleaver, F. / K. Hamada (2010): 'Good' water governance and gender equity: a troubled relationship, in: *Gender & Development*, 18 (1) 27–41, doi: 10.1080/13552071003599996
- Dankelman, I. (2002): Climate change: learning from gender analysis and women's experiences of organising for sustainable development, in: *Gender and Development*, 10, 21–29
- Davis, N. et al. (2009): Customization of RegCM3 regional climate model for Eastern Africa and a tropical Indian Ocean domain, in: *J. Climate*, 22, 3595–3616, doi: 10.1175/2009JCLI2388.1
- Denton, F. (2002): Climate change vulnerability, impacts, and adaptation: why does gender matter?, in: *Gender and Development*, 10, 10–20
- Enarson, E. (2002): Gender issues in natural disasters: talking points and research needs, Infocus Programme on Crisis Response and Reconstruction, Ed., selected issues papers: crisis, women and other gender concerns, Geneva: International Labour Office, 5–10
- Eriksen, S. H. / K. L. O'Brien (2007): Vulnerability, poverty and the need for sustainable adaptation measures, in: *Climate Policy* 7, 337–352
- FAN (Forest Action Network) (2005): Strategic plan 2006–2010; online: <http://www.fankenya.org/downloads/FANStrategicPlan2006-2010.pdf> (accessed 29 Sept. 2009)
- Ifejika Speranza, C. (2006a): Drought vulnerability and risk in agro-pastoral areas: an integrative approach and its application in Kenya, Bern: Centre for Development and Environment (CDE), Institute of Geography, University of Bern (PhD Thesis)
- (2006b): Gender-based analysis of vulnerability to drought among agro-pastoral households in semi-arid Makueni district, Kenya, in: S. Premchander / C. Müller (eds.), *Gender and sustainable development, perspectives of the Swiss National Centre of Competence in Research (NCCR) North-South*, Bern: University of Bern, Geographica Bernensia, 2; online: http://www.nccr-north-south.unibe.ch/publications/Infosystem/On-line%20Dokumente/Upload/Gender&SD_2006_5_Speranza.pdf (accessed 9 June 2009)
- ILO (International Labour Organization) (2010): Gender mainstreaming strategies in decent work promotion: programming tools; GEMS toolkit / ILO Regional Office for Asia and the Pacific, Bangkok; online: http://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---sro-bangkok/documents/publication/wcms_143849.pdf (accessed 23 Oct. 2009)

- IPCC (Intergovernmental Panel on Climate Change)* (2007): Summary for policymakers, in: B. Metz et al. (eds.), *Climate change 2007: Mitigation, contribution of working group III to the fourth assessment report of the Intergovernmental Panel on Climate Change*, Cambridge: Cambridge University Press
- Jackson, C.* (2003): Gender analysis of land: beyond land rights for women?, in: *Journal of Agrarian Change* 3, 453–480
- Jones, P. / P. Thornton* (2009): Croppers to livestock keepers: livelihood transitions to 2050 in Africa due to climate change, in: *Environmental science & policy* 12, 427–437, doi:10.1016/j.envsci.2008.08.006
- Kabeer, N.* (2008): Marriage, motherhood and masculinity in the global economy, open democracy; online: http://www.opendemocracy.net/article/5050/marriage_motherhood_and_masculinity_in_the_global_economy (accessed 23 Sept. 2010)
- Kenya National Bureau of Statistics* (2010): Kenya 2009 population and housing census highlights; online: <http://www.knbs.or.ke/Census%20Results/KNBS%20Brochure.pdf> (accessed 23 Oct. 2010)
- Kiragu, S.* (2010): Role of institutions in shaping climate risks adaptation processes and practices among semi-arid rural households of Mwingi region, Kenya; online: https://www.conftool.net/bc2010/index.php/Kiragu-Role_of_institutions_in_shaping_climate_risks_adaptation_processes_and_practices_among_semi_arid_rural.pdf?page=downloadPaper&filename=KiraguRole_of_institutions_in_shaping_climate_risks_adaptation_processes_and_practices_among_semi_arid_rural.pdf&form_id=173&form_index=&form_version=final (accessed 23 Oct. 2010)
- Lelo, F. / W. Chiuri / S. Ogalleh* (2010): Promoting gender equality in response to climate change: The case of Kenya: Background Paper, Bonn: Deutsches Institut für Entwicklungspolitik / German Development Institute
- McGray, H. / A. Hammill / R. Bradley* (2007): Weathering the storm – Options for framing adaptation and development, WRI report, Washington, DC: World Resources Institute
- MGC&SD (Ministry of Gender, Children and Social Development)* (2009): Gender data sheet 2008; online: <http://www.gender.go.ke/index.php/Download-document/10-Gender-Data-Sheet-2008.html> (accessed 5 Aug. 2010)
- (2010a): Gender and development; online: <http://www.gender.go.ke/index.php/Gender-and-Social-Development-Divisions/gender-and-development.html> (accessed 23 October 2009)
 - (2010b): Frequently Asked Questions (FAQs): Women enterprise Fund; online: <http://www.gender.go.ke/index.php/Women-Enterprise-Fund-WEF/faqs-wef.html> (accessed 23 Oct. 2009)
- Moturi, W.* (2008): Childhood diarrhoeal morbidity in rural households in Upper River Njoro Watershed: Risk factors and household interventions: Nairobi: Egerton University (PhD Thesis)
- Nyong'o, D. / O. Ongalo* (2005): From despair to hope: Women's right to own and inherit property; online: http://www.policyproject.com/pubs/countryreports/KEN_InheritanceRights.pdf (accessed 23 October 2009)
- NZAID* (2006): NZAID Gender analysis guideline; online: <http://nzaidtools.nzaid.govt.nz/sites/default/files/tools/1195062.pdf> (accessed 23 Oct. 2009)
- Ogallo, L. A.* (2000): Predicting drought in Kenya, in: D. Wilhite (ed.), *Drought: a global assessment*, London, New York: Routledge, 1, 52–67
- Ongayo, M. / C. Kimemia* (2008): Division of labour in practice: Responding to Paris Declaration Principles and a model for financing gender equality in Kenya, London (Workshop: “Strengthening the development results and impacts of the Paris Declaration through Work on Gender Equality, Social Exclusion and Human Rights”, 11–13 March 2008); online: http://www.oecd.org/dataoecd/5/46/40_430042.pdf (accessed 23 Sept. 2010)
- Pascual, M. et al.* (2006): Malaria resurgence in the East African highlands: temperature trends revisited, in: *Proceedings of the National Academy of Sciences* 103, 5829–5834; online: <http://www.pnas.org/content/103/15/5829.abstract> (accessed 22 May 2009)
- Rodenberg, B.* (2009) Climate change adaptation from a gender perspective: a cross-cutting analysis of development-policy instruments, Bonn: Deutsches Institut für Entwicklungspolitik / German Development Institute (Discussion Paper 24/2009); online: http://www.die-gdi.de/CMS-Homepage/openwebcms3.nsf/%28ynDK_contentByKey%29/ANES-7ZLHXG?Open (accessed 23 Sept. 2010)
- RoK (Republic of Kenya)* (2000): National gender and development policy, Nairobi

- (2002): First national communication of Kenya to the Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC), Nairobi: Ministry of Environment and Natural Resources, National Environment Secretariat; online: <http://unfccc.int/resource/docs/natc/kenncl.pdf> (accessed 11 May 2009)
 - (2003): State of environment report for Kenya; online: http://www.nema.go.ke/index2.php?option=com_docman&task=doc_view&gid=20&Itemid=35 (accessed 29 Sept. 2009)
 - (2004): Kenya review and appraisal, final report on the implementation of Beijing Platform for Action (Beijing +10), 1994–2004; online: <http://www.un.org/womenwatch/daw/Review/responses/KENYA-English.pdf> (accessed 29 Sept. 2009)
 - (2005a): Economic survey 2005, Nairobi: Government printer
 - (2005b): Kenya: Poverty reduction strategy annual progress report 2003/2004 (2007 International Monetary Fund May 2007, IMF Country Report 07/158), annual progress report 2003/2004, investment programme for the economic recovery strategy for wealth and employment creation 2003–2007, Ministry of Planning and National Development; online: <http://www.imf.org/external/pubs/ft/scr/2007/cr07158.pdf> (accessed 29 Sept. 2009)
 - (2005c): The forest Act 2005; online: <http://www.fankenya.org/downloads/DraftForestRules.pdf> (accessed 29 Sept. 2009)
 - (2007a): Kenya Vision 2030: A globally competitive and prosperous Kenya; online: http://safaricom.co.ke/foundation/fileadmin/template/main/downloads/Kenya_VISION_2030-final_report-October_2007.pdf (accessed 29 Sept. 2009)
 - (2007b): Kenya Vision 2030: The popular version; online: http://aideffectivenesskenya.org/index.php?option=com_docman&task=doc_download&Itemid=99999999&gid=5784 (accessed 29 Sept. 2009)
 - (2007c): Draft wildlife policy, final draft of the Wildlife Policy, Ministry of Tourism and Wildlife, 17 April 2007; online: <http://www.fankenya.org/downloads/draftwildlifepolicy2007.pdf> (accessed 29 Sept. 2009)
 - (2007d): The Wildlife (Conservation and Management) Bill; online: <http://www.fankenya.org/downloads/wildlife-conservation&managementbil2007.pdf> (accessed 29 Sept. 2009)
 - (2008a): First medium term plan 2008–2012, Kenya Vision 2030
 - (2008b): Environmental education and awareness for sustainable development implementation plan at the provincial and district levels in Kenya: draft: National Environment Management Authority; online: http://www.nema.go.ke/index.php?option=com_docman&task=doc_download&gid=150&Itemid=35 (accessed 23 Sept. 2010)
 - (2009): Ministry of Agriculture strategic plan 2008–2012, Nairobi: Ministry of Agriculture
 - (2010a): National climate change response strategy; online: http://www.environment.go.ke/index.php?option=com_content&view=article&id=6:eeai&catid=1:latest-news&Itemid=50 (accessed 23 Oct. 2010)
 - (2010b): 2nd bi-annual report on the implementation of the 30 % affirmative action in employment and recruitment of women in the public sector, Nairobi: Ministry of Gender, Children and Social Development
- Schalatek, L.* (2009): Gender and climate finance: double mainstreaming for sustainable development, Washington, DC: Heinrich Böll Foundation North America; online: http://www.uneca.org/acpc/resources/Gender-and-climate-change/DoubleMainstreaming_Final.pdf (accessed 7 June 2010)
- Schreck, C. / F. Semazzi* (2004): Variability of the recent climate of eastern Africa, in: *International Journal of Climatology* 24, 681–701, doi: 10.1002/joc.1019
- SEI (Stockholm Environment Institute)* (2009): The economics of climate change in Kenya: Final report submitted in advance of COP15; online: <http://sei-international.org/mediamanager/documents/Publications/Climate-mitigation-adaptation/kenya-climatechange.pdf> (accessed 23 Oct. 2010)
- Squires J.* (2007): The new politics of gender equality, Hampshire: Palgrave Macmillan
- SUMAWA* (2005): Annual report of the sustainable management of rural watersheds: Biophysical, livestock and human interactions in the River Njoro Watershed Project. GL-CRSP, Fall 2004; online: <http://www.uwyo.edu/sumawa/Publications/SUMAWA%20Final%20report%202004-20051.pdf> (accessed 29 Sept. 2009)

- Thomas-Slayter, B. / D. Rocheleau* (1995): Gender, resources and local institutions: New identities for Kenya's rural women, Boulder, CO/London: Lynne Rienner Publishers
- UN Millennium Project* (2005): Taking action: Achieving gender equality and empowering women, Task force on education and gender equality; online: <http://www.unmillenniumproject.org/documents/Gender-complete.pdf> (accessed 7 June 2010)
- UNDP (United Nations Development Programme)* (2006): Kenya national human development report 2006. Human security and human development: A deliberate choice; online: http://hdr.undp.org/en/reports/nationalreports/africa/kenya/KENYA_2006_en.pdf (accessed 7 June 2010)
- United Nations* (1979): The Convention on the Elimination of All Forms of Discrimination against Women (CEDAW); online: <http://www.un.org/womenwatch/daw/cedaw/text/econvention.htm> (accessed 18 Jan. 2010)
- (1994): World Conference on Human Rights 1993; online: <http://www.unhchr.ch/huridocda/huridoca.nsf/%28Symbol%29/A.RES.48.121.En?OpenDocument> (accessed 18 Jan. 2010)
 - (1995): the Fourth World Conference on Women in Beijing; online: <http://www.un.org/womenwatch/daw/beijing/platform/declar.htm>; <http://www.un.org/womenwatch/daw/beijing/pdf/BDPfA%20E.pdf> (accessed 18 Jan. 2010)
 - (1997): Report of the economic and social council for 1997 (A/52/3, 18 September 1997); online: <http://www.un.org/documents/ga/docs/52/plenary/a52-3.htm> (accessed 7 June 2010)
 - (2000a): Resolution adopted by the General Assembly: A/RES/S-23/2, S-23/2, political declaration; online: <http://www.un.org/womenwatch/daw/followup/ress232e.pdf> (accessed 18 Jan. 2010)
 - (2000b): Resolution adopted by the General Assembly: A/RES/S-23/3; S-23/3, further actions and initiatives to implement the Beijing Declaration and Platform for Action; online: <http://www.un.org/womenwatch/daw/followup/ress233e.pdf> (accessed 18 Jan. 2010)
 - (2000c): Resolution adopted by the General Assembly: A/RES/55/2; 55/2, United Nations Millennium Declaration; online: <http://www.un.org/millennium/> (accessed 18 Jan. 2010)
 - (2001): Important concepts underlying gender mainstreaming, UN Office of the Special Adviser on Gender Issues and Advancement of Women 2001; online: <http://www.un.org/womenwatch/osagi> (accessed 7 June 2010)
- World Bank* (2001): Engendering development: through gender equality in rights, resources and voice; online: http://www-wds.worldbank.org/external/default/WDSPContentServer/WDSP/IB/2001/03/01/000094946_01020805393496/Rendered/PDF/multi_page.pdf (accessed 7 June 2010)

Annex 1: Surveyed organisations

Nr.	Respondents' organisations	Organisation type	Climate-related work
1	Tegemeo Institute	Research	Policy issues; climate change adaptation; assessing farmer's response strategies, farmers' knowledge and weather forecasting methods.
2	Resource Conflict Institute (RECONCILE)	NGO	Policy research, community capacity building and advocacy.
3	Forest Action Network (FAN)	NGO	Consolidate civil society organisations to have a common voice in the climate change debate. Capacity building of government departments and CSOs for effective participation in international climate forums; awareness creation on climate change; Preparation of the global warming bill.
4	IGAD Climate Prediction & Applications Centre (ICPAC)	Research	Climate monitoring and prediction; Provision of climate information and early warning; disaster management; awareness creation on climate and weather; Research on climate and application of climate information in decision making processes.
5	National Environment Management Authority (NEMA)	Government Ministry	Supervision and coordination of all matters relating to the environment. Principal government instrument in implementation of all policies related to the environment. Designated National Authority (DNA) for the Clean Development Mechanism (CDM). National Focal Point for the UNFCCC.
6	Kenya Meteorological Department (KMD)	Government Ministry	Monitoring, forecasting; research and training in meteorology and climatology; provision of meteorological and climatological services.
7	Department of Resource Surveys and Remote Sensing (DRSRS)	Government department	Collection, storage, archiving, analysis, updating and dissemination of geo-spatial information on natural resources for informed decision-making for sustainable management.
8	Institute of Environment and Water (IEW)	NGO	Capacity building of communities on water and environmental issues.
9	African Centre for Technology Studies (ACTS)	Research and training	Analyses of international treaties and protocols on climate change; capacity building for young scientists; adaptation projects.
10	The Regional Programme for Sustainable Use of Dryland Resources (RPSUD)	Research	Research on ecosystems resilience, shocks and disaster.
11	National Museums of Kenya (NMK)	Government Ministry	Protection of the cultural and natural heritage; promoting indigenous knowledge systems.
12	Kenya Agricultural Research Institute (KARI)	Research	Agricultural research and technology transfer.

Nr.	Respondents' organisations	Organisation type	Climate-related work
13	Wajir South District, Ministry of Livestock Development	District government	The organisation is covering the special programmes sector in the budget process where issues of disaster are dealt with.
14	Ministry of Planning, National Development and Vision 2030	Government Ministry	The Ministry plays a key role in the overall structure of government and administration in Kenya. It facilitates and coordinates the national development planning process and it provides leadership in national economic policy management
15	Small Scale Horticulture Development Project, Ministry of Agriculture	Government Ministry	Provision of irrigation infrastructure, protection of water catchment and river banks, environment and the soils in project areas; promotion of horticultural crops.
16a	Ministry of Water and Irrigation	Government Ministry	Facilitates sustainable management and development of water resources for national development
16b	Ministry of Water and Irrigation; Irrigation and Drainage & Water Storage Department	Government department	Promotion of the development of sustainable farmer-owned and managed water storage, irrigation and drainage projects, and use of appropriate technology. Provision of irrigation and drainage services: investigations, survey, design, and supervision of civil works, irrigation water management and training.

Publications of the German Development Institute

Nomos Verlagsgesellschaft

- Messner, Dirk / Imme Scholz* (eds.): *Zukunftsfragen der Entwicklungspolitik*, 410 p., Nomos, Baden-Baden 2004, ISBN 3-8329-1005-0
- Neubert, Susanne / Waltina Scheumann / Annette van Edig, / Walter Huppert* (eds.): *Integriertes Wasserressourcen-Management (IWRM): Ein Konzept in die Praxis überführen*, 314 p., Nomos, Baden-Baden 2004, ISBN 3-8329-1111-1
- Brandt, Hartmut / Uwe Otzen*: *Armutsorientierte landwirtschaftliche und ländliche Entwicklung*, 342 p., Nomos, Baden-Baden 2004, ISBN 3-8329-0555-3
- Liebig, Klaus*: *Internationale Regulierung geistiger Eigentumsrechte und Wissenserwerb in Entwicklungsländern: Eine ökonomische Analyse*, 233 p., Nomos, Baden-Baden 2007, ISBN 978-3-8329-2379-2 (Entwicklungstheorie und Entwicklungspolitik 1)
- Schlumberger, Oliver*: *Autoritarismus in der arabischen Welt: Ursachen, Trends und internationale Demokratieförderung*, 225 p., Nomos, Baden-Baden 2008, ISBN 978-3-8329-3114-8 (Entwicklungstheorie und Entwicklungspolitik 2)
- Qualmann, Regine*: *South Africa's Reintegration into World and Regional Markets: Trade Liberalization and Emerging Patterns of Specialization in the Post-Apartheid Era*, 206 p., Nomos, Baden-Baden 2008, ISBN 978-3-8329-2995-4 (Entwicklungstheorie und Entwicklungspolitik 3)
- Loewe, Markus*: *Soziale Sicherung, informeller Sektor und das Potenzial von Kleinstversicherungen*, 221 p., Nomos, Baden-Baden 2009, ISBN 978-3-8329-4017-1 (Entwicklungstheorie und Entwicklungspolitik 4)
- Loewe, Markus*: *Soziale Sicherung in den arabischen Ländern: Determinanten, Defizite und Strategien für den informellen Sektor*, 286 p., Nomos, Baden-Baden 2010, ISBN 978-3-8329-5586-1 (Entwicklungstheorie und Entwicklungspolitik 7)
- Faust, Jörg / Susanne Neubert* (Hrsg.): *Wirksamere Entwicklungspolitik: Befunde, Reformen, Instrumente*, 432 p., Nomos, Baden-Baden 2010, ISBN 978-3-8329-5587-8 (Entwicklungstheorie und Entwicklungspolitik 8)

[Books may be ordered only through publishing house or bookshops.]

Book Series with Routledge

- Brandt, Hartmut / Uwe Otzen*: *Poverty Orientated Agricultural and Rural Development*, 342 p., Routledge, London 2007, ISBN 978-0-415-36853-7 (Studies in Development and Society 12)
- Krause, Matthias*: *The Political Economy of Water and Sanitation*, 282 p., Routledge, London 2009, ISBN 978-0-415-99489-7 (Studies in Development and Society 20)

[Books may be ordered only through publishing house or bookshops.]

Springer-Verlag

- Scheumann, Waltina / Susanne Neubert / Martin Kipping* (eds.): *Water Politics and Development Cooperation: Local Power Plays and Global Governance*, 416 p., Berlin 2008, ISBN 978-3-540-76706-0

Studies

- 56 *Grimm, Sven et al.*: Coordinating China and DAC Development Partners: Challenges to the aid architecture in Rwanda, 200 p., Bonn 2010, ISBN 978-3-88985-492-6
- 55 *Weinlich, Silke*: Die Reform der Entwicklungszusammenarbeit der Vereinten Nationen: Eine Analyse des Verhaltens und der Positionierung wichtiger Staaten gegenüber Reformoptionen, 121 p., Bonn 2010, ISBN 978-3-88985-491-9
- 54 *Ifejika Speranza, Chinwe*: Resilient Adaptation to Climate Change in African Agriculture, 311 p., Bonn 2010, ISBN 978-3-88985-489-6
- 53 *Krause, Matthias et al.*: Formalisation and Business Development in Mozambique: How important are regulations? 131 p., Bonn 2010, ISBN 978-3-88985-490-2
- 52 *Voionmaa, Petra / Michael Brüntrup*: German Aid for Trade: Past experience, lessons learnt, and the way forward, 150 p., Bonn 2009, ISBN 978-3-88985-488-9
- 51 *Wiemann, Jürgen et al.*: Laos on its Way to WTO Membership: Challenges and opportunities for developing high-value agricultural exports, 186 p., Bonn 2009, ISBN 978-3-88985-487-2
- 50 *Makhan, Davina*: Linking EU Trade and Development Policies: Lessons from the ACP-EU trade negotiations on Economic Partnership Agreements, 184 p., Bonn 2009, ISBN 978-3-88985-486-5
- 49 *Rhys Jenkins / Enrique Dussel Peters*: China and Latin America: Economic relations in the twenty-first century, 397 p., Bonn 2009, ISBN 978-3-88985-485-8

[Price: 10,00 Euro; books may be ordered directly from the DIE or through bookshops.]

Discussion Paper

- 4/2011 *Altenburg, Tilman*: Industrial Policy in Developing Countries: Overview and lessons from seven country cases, 97 p., Bonn 2011, ISBN 978-3-88985-533-6
- 3/2011 *Hensengerth, Oliver*: Interaction of Chinese Institutions with Host Governments in Dam Construction: The Bui dam in Ghana, 47 p., Bonn 2011, ISBN 978-3-88985-532-9
- 2/2011 *Dafe, Florence*: The Potential of Pro-Market Activism as a Tool for Making Finance Work in Africa, 45 p., Bonn 2011, ISBN 978-3-88985-531-2
- 1/2011 *Erdle, Steffen*: Industrial Policy in Tunisia, 63 p., Bonn 2011, ISBN 978-3-88985-529-9
- 20/2010 *Haldenwang, Christian von / Maksym Ivanyna*: Assessing the Tax Performance of Developing Countries, 42 p., Bonn 2010, ISBN 978-3-88985-528-2
- 19/2010 *Bučar, Maja*: Science and Technology for Development: Coherence of the common EU R&D policy with development policy objectives, 48 pl, Bonn 2010, ISBN 978-3-88985-527-5
- 18/2010 *Ondřej Horký*: The Europeanisation of Development Policy: Acceptance, accommodation and resistance of the Czech Republic, 31 p., Bonn 2010, ISBN 978-3-88985-526-8
- 17/2010 *Brandi, Clara / Christine Ladenburger / Anna Pegels*: Intellectual Property Rights as a Challenge to Providing Global Public Goods: The cases of public health, food security and climate stability, 49 p., Bonn 2010, ISBN 978-3-88985-524-4

[Price: 6,00 Euro; books may be ordered directly from the DIE or through bookshops.]

A complete list of publications available from DIE can be found at:

<http://www.die-gdi.de>